Cumulative Author Index 1993

Aas, N., 1249
Abdel-Halim, S. T., 55
Abd-El-Nabey, B. A., 795
Aboukaïs, A., 1257, 2545
Abram, V., 3065
Abu-Eittah, R. H., 3353
Adams, J. W., 1645
Adler, S. B., 3123
Adnot, A., 4231
Ågren, H., 1637
Aguilar, A., 1587, 3223
Ahluwalia, J. C., 2769, 3465
Åhrling, K. A., 2863
Aicart, E., 89
Aïssi, C. F., 2545
Akai, T., 1339
Akinaka, N., 595
Akolekar, D. B., 4141
Al-Alousy, A., 1041
Alberti, M., 1587
Albery, W. J., 327, 2487
Alcobé, X., 3797
Alcock, C. B., 4149
Alegría, A. E., 3363, 3773
Alfonzo, P. N., 3675
Al-Hallaq, H., 3801
Aliev, A. E., 3791, 3797
Alijah, A., 177
Al-Khayat, H. A., 2717
Allamandola, L. J., 2169, 2171, 2257, 2277, 2309, 2310, 2320
Allan, N. L., 4369
Allavena, M., 1397
Allen, M. R., 763
Allen, N. S., 4327
Allonas, X., 4267
Al-Rawi, J. M. A., 2727
Alshehri, S., 1041
Alvarez, L. J., 3623
Amann, A., 2451
Anacona, J. R., 3675
Anderson, J. A., 3651
Anderson, P., 2907
Andini, S., 503
Ando, T., 749, 1383, 1783, 3105, 3635
André, J-J., 4299
Andreoli-Ball, L., 81
Andrews, S. R., 2945
Antonić, T., 1817
Aoiz, J., 1427
Apperley, D. C., 693, 3791
Aquilanti, V., 1467
Arafeh, R. M., 1235, 1243
Arcioni, A., 2815
Arena, F., 601
Armand, F., 1021
Armand, M., 355
Arnold, C. C., 1449
Ash, R. B., 361
Ashfold, M. N. R., 1153, 2337, 3865
Ashworth, A., 2409
Astbury, C. J., 405
Attwood, D., 539, 1235, 1243
Aveyard, R., 4313
Axon, S. A., 4245
Ayyub, P., 3585
Aziz, S. G., 795
Baba, T., 595, 3177
Babak, V. G., 4059
Bacskay, G. B., 2363
Bagatti, M., 29, 3913
Bai, L., 235, 243
Bai, T., 1741
Bailey, S., 1109
Bakshi, M. S., 2001, 3049, 4323
Balasubramanian, V., 2239
Balint-Kurti, G. G., 2161, 2209, 2239, 2258
Balm, S., 2318
Baraton, M-I., 3111
Baril, D., 355
Barker, I. C., 4327
Barnes, M. P., 3205
Barrow, R. F., 4407
Barthomeuf, D., 857, 1823, 3659
Bartlett, P. N., 213
Bartoszak, E., 2085
Bastl, Z., 3907
Bastos, M., 1351
Batchelor, R. A., 1717
Bateman, O., 2677
Bates, F. M., 3381
Batten, R. J., 4327
Battistuzzi Gavioli, G., 3931
Baumgärtel, H., 3331
Baumgartner, E., 1049
Baumgartner, J. B., 3313
Beagley, B., 4407
Beärda, R. A., 2255
Beaumont, P. C., 4185
Becerra, R., 411
Bechara, R., 1257, 2545
Bechtold, T., 2451
Beck, K., 3995
Becker, R. S., 1007
Beckmann, P. A., 3801
Bedells, A. D., 1235, 1243
Beer, P. D., 333
Bell, A. J., 1623
Belshaw, N. J., 2595
Belton, P. S., 4203
Bencze, L., 843
Bengs, H., 37
Benítez, J. J., 3307
Benko, J., 1745
Bennett, C. O., 4109
Benrabah, D., 355
Berardi, R., 4069
Bergeret, G., 3313
Bernal, S., 3499
Bernard, M., 4299
Bernardinelli, G., 2391
Berndt, H., 1277
Beruto, D., 2457
Bettinelli, M., 4363
Bežan, M., 2445
Bhattacharyya, K., 1959
Bhuiyan, L. B., 1315
Biggs, P., 4163
Billingham, J., 3021
Billingham, N. C., 2107
Binks, B. P., 4313
Bisal, S. R., 3277
Bisby, R. H., 2873
Black, J. H., 2163, 2171
Blandamer, M. J., 531, 869, 1041, 3183, 4199
Bloor, D., 1397, 4013
Bloor, D. M., 2737
Blundell, N. J., 1041
Bobleter, O., 2451
Boesman, E., 3691
Boger, D. V., 2473
Böhmer, E., 1419
Bommer, J. C., 495
Bonardet, J., 833
Bond, G. C., 3129
Bone, R. G. A., 2363
Bonnelle, J-P., 1257
Bonnelle, J. P., 2545
Bonneté, F., 2659
Bontuyan, L. S., 1443, 3667
Booth, C., 539, 869, 1235, 1243
Borade, R. B., 3143
Bordiga, S., 1843, 3483, 4123
Borgna, A., 3313
Borsari, M., 3931
Bosáček, V., 1833
Bosch, E., 1723
Botella, V., 43
Botschwina, P., 2164, 2219, 2255, 2256, 3669
Bouquiere, J. P., 2701
Bowker, M., 1249
Bowmaker, G. A., 3015
Bowman, W. R., 1199
Boxwell, M. A., 2957
Boyd, P. D. W., 3015
Braithwaite, M., 4369
Brand, P. W. J. L., 2131
Brass, O., 1533
Brechignac, P., 2255, 2313, 2314
Bréhéret, E., 623
Brekhovskikh, V. V., 1975
Bridier, I., 2993
Briend, M., 1823
Brienne, S. H. R., 3015
Broadbent, R. D., 2927
Brookes, H., 547
Brooksbank, D. V., 3419
Brotas de Carvalho, M., 579
Brotherton, S., 397
Brouard, M., 1427, 1435
Brown, A. R., 207
Brown, D. R., 1387
Brown, J. M., 3205
Brown, L. J., 151
Brown, R., 585, 1095, 2519
Brown, S. E., 1035
Bruce, P. G., 3187
Bruckenstein, S., 251, 339, 3779
Brunette, J-P., 4299
Brunetti, B., 1505
Brunner, E., 165
Brzezinski, B., 1211
Buck, R. P., 361
Buckingham, A. D., 1909, 4253
Buján-Núñez, M. C., 573
Bunzl, K., 107
Burdisso, M., 29
Bureš, M., 1025
Burgess, J., 531, 783, 1041
Burrows, H. D., 3117
Burton, N. A., 2631
Burtscher, E., 2451
Busca, G., 753, 1071
Buscall, R., 2473
Buxton, G. V., 485
Cabaleiro, M. C., 2727
Caballero, A., 159
Cacace, P., 503
Cai, Z-L., 991
Calderazzo, F., 4363
Callens, F., 3691
Calvaruso, G., 1373
Calvino, J. J., 3499
Calvo, E. J., 377
Cameron, B. R., 1903, 3517
Caminati, W., 1631, 4153
Cammack, R., 2869, 3685
Campos, A., 1765
Cané, E., 4005
Canosa, A., 2193, 2214, 2216
Canosa-Mas, C. E., 3899, 4163
Capitán, M. J., 3623
Cappelletti, D., 1467
Caralp, F., 4163
Cárdenas García, J. D., 2727
Carl, S. A., 1645
Carnelli, L., 1843
Carpenter, J. H., 397
Carrington, A., 603
Carrizosa, I., 3307
Carrot, P., 579
Carter, R. T., 3205
Casarin, M., 4363
Cashion, J. D., 151
Castaño, F., 1645
Casteleyn, E., 2037
Castronuovo, G., 503, 3061
Catalfamo, P., 171
Cavasino, F. P., 1373
Centeno, M. A., 3623
Cerrato, G., 135
Chakravorti, S., 1007
Chan, M. L., 867
Chan, T. C., 867
Chandrashekar, T. K., 677
Chang, S-C., 223
Chao, K-j., 3841
Chapman, B. E., 2807
Charlton, M. H., 1671
Charra, F., 37
Chen, G., 4171
Chen, M. J., 3591
Chen, X., 4137
Chen, Y-H., 2479
Chen, Y., 1079
Cheng, V. K. W., 3579
Cheng, Y., 199
Chenier, M. P., 1193
Chesher, D. A., 303
Chihara, H., 1339
Child, M. S., 2107
Chiu, S-L., 2631
Chokchai-acha, S., 3161
Chrisment, J., 927
Christensen, P. A., 303, 921
Christie, I., 2847
Chu, B., 539, 4149
Chu, M., 4171
Cifredo, G. A., 3499
Čižmek, A., 1817
Claridge, J. B., 1089
Clark, D. C., 2755
Clark, G. R., 3597
Clarke, A. P., 1695
Clary, D. C., 1397, 2165, 2185, 2212, 2213, 2258
Claxton, T. A., 2957
Clearfield, A., 3143
Cleaver, B., 3817
Cleland Jr., W. E., 3695
Clément, R., 4339, 4347
Clement, S. G., 1153
Clifford, A. A., 4407
Coates, J. H., 1035
Cohen, H., 4045
Cohen, S., 3271
Colangeli, L., 2312, 2317, 2318
Collett, J. H., 539
Colling, C. N., 77
Collison, D., 3695, 3705
Coluccia, S., 1121, 1127, 3483
Comets, J-M., 4397
Conn, P. F., 1753
Connah, M. T., 3091
Conner, W. C., 833
Connor, J. N. L., 1481
Contescu, C., 2075, 4091
Conway, B. E., 235, 243
Cooney, R. P., 3015
Cooper, A., 2693
Cooper, D. L., 4369
Cooper, J. L., 1287
Corbelli, G., 1631
Cordes, E., 1609
Corigliano, F., 171
Corish, J., 2839
Corradini, F., 123, 1357, 3043
Correia, N., 1637
Corrigan, O. I., 2839
Cosofret, V. V., 361
Costa, S. M. B., 1925, 1937
Costas, M., 81, 89, 1025, 2441
Costes, M., 1501
Coudurier, G., 2545, 3151
Coveney, P. V., 3021
Covington, A. K., 369
Cowles, H. J., 1041
Cox, A. P., 2937
Cox, R. A., 2983
Cox, S. F. J., 2957
Craw, J. S., 2363
Crawford, I. A., 2261
Crawford, M. J., 1623
Crayston, J. A., 295
Crockett, R., 2101
Cross, G., 4013
Cruzeiro-Hansson, L., 2637
Curtis, W. C., 4109
Czapski, G., 4045
Czarnowski, J., 451
Czarnowski, Z., 451
Daghetti, A., 187
Dai, L., 277
Dalas, E., 3645
Dalberth, M. J., 1401
Dalgarno, A., 2111, 2161, 2162, 2167, 2169, 2170, 2171, 2214
Dalmon, J. A., 3975
Dalpi, M., 965
Danil de Namor, A. F., 2727
Danilowicz, C., 377
Darwent, J. R., 873
Das, A. K., 905
Das, K., 1959
Das, S., 2397
Das, S. S., 2429
Dashevskaya, E. I., 1567
Datka, J., 1829
Davidson, A., 3301
Davidson, C. M., 3419
Davidson, M. M., 2631
Davies, M. C., 179
Davis, G. R., 2907
Davis, M. E., 951, 957
Daza, L., 3651
De Almeida, W. B., 983
de Castro, S. C., 1057
Deeth, R. J., 3745
Dega-Szafran, Z., 2085
de Graca Miguel, M., 1007
Deki, S., 3805, 3811
del Arco, M., 1071
Del Favero, N., 135
de Lind, M., 2397
Della Volpe, C., 3061
Delmon, B., 3157
Delpuech, J-J., 927
del Río Portilla, F., 4275
Demeunynck, M., 3261
Demuynck, C., 2216, 2256
Dennis, T. J. S., 3541
Denofre, S., 1057
Derewinski, M., 1823
Desai, M. A., 2847
Destombes, J. L., 2258, 2259
Devaud, V., 4307
DeVries, A. L., 2891
Dexpert, H., 159
Dhathathreyan, A., 3075
Díaz, L., 377, 3907
Dickinson, E., 573, 865, 3453
Didymus, J. M., 2891
Dikstein, S., 3271
Ding, L., 419
Di Nola, P., 3711
Diogo, H. P., 3541
Di Pasquale, S., 171
Dixon, R. N., 3865
Dobrovolszky, M., 3137
Docherty, R., 1671
Doggett, G., 1397
Dohnal, V., 1025
Dolan, A. S., 1095
Domingo, P. L., 3571
Domínguez, A., 89
Donato, A., 3129
Dong, W., 873
Donnelly, S. G., 1457
Donovan, R. J., 1885
Dopfer, O., 1609
Dorthe, G., 1501
Dowdell, D. C., 3545
Drahorádová, E., 1833

Drew, M. G. B., 3963
Driessen, J. P. J., 1401
Duckworth, P. A., 1035
Duer, M. J., 823, 869
Dunstan, D. E., 521, 527
Dupuis, M., 2961
Duxbury, G., 177
Duxon, S., 1435
Dyer, A., 971, 977, 1877
Easton, C. J., 1035
Eastwick-Field, V., 213
Ebata, T., 623
Ebel, C., 2659
Eberl, M., 2783
Ebitani, K., 2067
Ecoffet, C., 457
Edge, M., 4327
Eikema, K. S. E., 2162
Einicke, W-D., 1871
Eisenberg, H., 2659
El-Awady, A. A., 795
El-Basil, S., 909
Elia, V., 503, 3061
Elimelech, M., 3443
Elliot, A. J., 485, 1193
Elliot, J. A., 4013
Elliott, C. J., 2609
Elliott, J. C., 2907
Ellis, K., 2289
Ellis, M. C., 2937
Ellison, A., 843, 4393
Emerson, A. P. J., 4069
Emrich, M., 2983
Engberts, J. B. F. N., 4199
Enriquez, P. A., 1427, 1435
Ertek (Haciu), D., 129
Estop, E., 3797
Evans, J., 4407
Faguy, P. W., 811
Fajgar, R., 3907
Falcinelli, S., 1505
Fan, S., 2923
Fang, J-Y., 1659
Fantola Lazzarini, A. L., 3737
Farchmin, R. O., 229
Farrar, J. M., 1457
Farrington, G. C., 349
Faubel, M., 1475
Fausto, R., 3235, 4257
Favaro, G., 699
Favero, L. B., 1631
Favre, E., 4339, 4347
Fawcett, W. R., 811
Feakins, D., 3381
Fei, L., 1839
Feio, G., 3117
Fejes, P., 4221
Fenclová, D., 1025
Fernando, K. R., 1353
Ferreira, L. A. V., 3761
Ferreira, L. F. V., 1937
Ferrero, M., 833
Field, D., 2231, 2256, 2257, 2258, 2259
Fierro, J. L. G., 3507, 3651, 3981
Figueruelo, J. E., 1765
Filippi, F., 135
Filippov, L. K., 4053
Finel, C., 2559
Finney, J. L., 2609, 2701
Fischer, J., 789
Fisher, L. R., 817, 2567
Fletcher, J. P., 3297
Fletcher, P. D. I., 4313
Fletcher, S., 311, 3181
Flint, C. D., 873
Flower, D., 2161, 2167
Flügge, J., 2219, 3669
Folonari, C., 135
Fontanesi, C., 3931
Fornasiero, D., 817
Forni, L., 3727, 4381
Förster, H., 4221
Foss Jr., C. A., 811
Fouassier, J. P., 465
Fowler, P. W., 1915
Fracheboud, J. M., 4163
Fraissard, J., 833
Franchini, G., 3043
Franco, M. L. T. M. B., 1327
Franks, F., 3283
Freeman, C. M., 2609
Freeman, R., 4275
Freixo, M. R., 1937
Frère, Y., 4299
Fréty, R., 3313, 3975
Frey, H. M., 411, 4405
Frey, J. G., 1623
Fricke, R., 1131
Friedrich, B., 1539
Frost, M. J., 2355, 4251
Frusteri, F., 601
Fujii, T., 3437, 3641
Fujiwara, T., 535
Fujiyasu, H., 3723
Fukami, S., 1857
Fukuhara, K., 4079
Fukuhara, N., 3827
Funasaki, N., 4355
Furlong, D. N., 2031
Furuhashi, H., 3371
Gaiduk, V. I., 1975, 1985
Gandolfi, R., 29, 3913
Gangasharan, 509
Gao, L., 235, 243
Gao, X., 1079
Gao, X. J., 2907
Gao, Z., 1779
Garay, M., 1493
Garcia, A. R., 1937
Garcia, B., 3571
Garcia-Colin, L. S., 4149
Garcia Dominguez, J. A., 3907
Gard, G. G., 355
Gardiner, D. J., 881
Gardner, P. J., 4149
Garrett, P. R., 4313
Garrido Pardo, M. T., 2727
Gartner, C. A., 1007
Gatehouse, B., 1899
Gathercole, L. J., 2589
Gatica, J. M., 3499
Gaumet, J. J., 1001, 1667
Geladi, P., 63
Gelpi, J. Ll., 2707
Geobaldo, F., 4123
Geoffroy, M., 2391
George, A. R., 2017
George, M. V., 2397
Geraldes, C. F. G. C., 3117
Gerlich, D., 2164, 2167, 2168, 2199, 2210, 2215, 2217
Gerry, M. C. L., 1899
Getoff, N., 891
Ghanem, N., 1501
Ghoneim, N., 4271
Ghosh, S., 2847
Giamello, E., 3715
Gil, A. M., 4203
Gil, F. P. S. C., 3235
Gilbert, E. P., 1527
Gilibert, M., 3223
Gill, D. S., 1737, 3955
Gilman, J. M. A., 1717
Giménez, X., 1587
Giordani, M., 2457
Giordano, N., 601
Girault, H. H., 207, 4307
Giussani, A., 4215
Gläser, B., 1871
Glidle, A., 1695
Glover, I., 2677
Godward, J., 3471
Goeres, A., 2319
Gökağaç, G., 151
Golden, T. C., 3491
Goldstein, S., 4045
Gómez, C. M., 1765
González, M., 3223
González-Díaz, P. F., 3907
González Ureña, A., 1493
Goodfellow, J. M., 2637, 3407
Goodwin, A., 2385
Gopal, S., 2769
Góralski, P., 2433
Görgényi, M., 447
Görner, H., 4027
Goscinska, T., 1969
Gottesfeld, S., 287
Gottlieb, C. A., 2125
Gough, T. E., 3857
Govers, H. A. J., 3751
Graham, F., 547
Graham, J. S., 3091
Grande, X., 1587
Grange, P., 3157
Gray, M. D., 2170, 2231, 2257
Green, D. V. S., 2631
Green, K. J., 1867
Green, M. L. H., 1089, 1189
Green, N. J. B., 1299
Greenblatt, M., 3603
Greenidge, P. A., 2651
Greenslade, D. J., 3733
Greppi, A., 2055
Grice, R., 1487
Grieser, F., 2031
Griffin, M. C. A., 2879, 3395
Griffin, W. G., 2879, 3395
Griffith, W. P., 1203, 4035
Griffiths, W. J., 1637, 2945
Grimblot, J. G., 1805
Gritzner, G., 2007, 3553, 3557
Grobet, P., 63
Gross, M., 4299
Grunder, R., 1215
Grundwald-Wyspiánska, M., 2085
Gruzdkov, Yu. A., 4017
Guan, Y., 4283
Guardado, P., 1041
Guenin, M., 3313
Guillois, O., 2289
Gulino, A., 4363
Gunning, A. P., 2595
Gupta, N. M., 1143
Gushikem, Y., 1057
Gutman, I., 2413
Ha, T-K., 2381
Hachiya, N., 707
Hada, S., 4355
Haenel, M. W., 891
Haider, N., 7, 1653
Hajnal, M. R., 2381
Halawani, K. H., 3565
Haley, J., 1753
Hall, D. G., 2737
Hall, D. I., 177
Hall, G., 615
Halstead, T. K., 3183
Halvick, P., 1579
Hamanishi, K., 3007
Hamanoue, K., 3243
Hambright, P., 495
Hamdoune, F., 927
Hamed, M. M., 671
Hammer, C., 4271
Hamnett, A., 277, 303, 921, 1593, 1717
Hampson, J. A., 3169
Hanada, T., 3177, 3243
Hancock, G., 405
Handy, N. C., 3999
Hao, L., 515, 2775
Hare, J. P., 3541
Harjula, R., 971, 977, 1877
Harland, P. W., 1903, 3517
Harris, F. M., 1637, 2945
Harris, K. D. M., 2017, 2023, 3099, 3791, 3797
Harris, K. R., 1969
Harris, P. J. F., 1189
Harris, R. K., 3791
Harrison, C. C., 4115
Harrison, N., 59
Harrison, P. G., 1397, 2409
Hasebe, T., 4249
Haselbach, E., 4271
Hashino, T., 3611, 4375
Hatchikian, E. C., 2869
Hattori, H., 2067
Hattori, M., 827
Haubtmann, C., 4299
Hauschka, P. V., 2891
Hayashi, Y., 707
Hayhurst, D. T., 3161
Hayman, G. D., 433
Healy, T. W., 2473
Heatley, F., 1235, 3471
Hedwig, G. R., 2761
Heeks, S. K., 3289, 3783
Heineking, N., 1899
Heinzel, C., 3331
Helliwell, J. R., 2667
Helmer, M., 763
Hepel, M., 251
Herbst, E., 2164, 2165, 2167, 2168, 2169, 2175, 2209, 2211, 2213, 2214, 2215
Hernández, M., 3773
Hernández-Laguna, A., 43
Hernández-Trujillo, J., 2441
Herold, B. J., 1327
Herschbach, D. R., 1539
Hervé, G., 3301
Hetherington III, W. M., 1067
Hewitt, D., 817
Hickman, C. G., 1623
Higa, M., 3433
Higgins, S. J., 921
Higgs, J., 3733
Higson, S. P. J., 2847
Hikida, K., 3723
Hikita, S., 3177
Hillier, I. H., 2631
Hillman, A. R., 339, 921, 1695, 3779, 3941
Hirayama, C., 659
Hitchcock, A. P., 3331
Ho, Z. Z., 1067
Hoffmann, H. J., 4149
Hoffmann, R., 2107
Hofmann, P., 1101
Hogervost, W., 2162
Hojo, M., 3515
Holbrook, J. J., 2707
Holden, A. V., 2833
Holmes, D. F., 2589
Holt, C., 2683
Holz, M., 1215
Homer, J., 3029, 3767
Hopkinson, I., 4115
Horiuchi, K., 3359
Horn, M., 2219, 3669
Horne, D. S., 3419
Hörzenberger, F., 3557
Hotchandani, S., 2397
Housaindokht, M. R., 1963
Houston, P. L., 1443, 3667
Howard, M. J., 3029
Howe, D. A., 2166, 2168
Howe, J. D., 1153, 2337
Howell, D., 3297
Howell, I., 2927
Howells, W. S., 3183
Hsia, Y., 1079
Hsu, J-P., 1229, 1689
Hu, J., 4091
Huang, M., 4231
Hubbard, C. D., 1041
Hudgins, D. M., 2315
Huguenin, D., 939, 2055
Huizer, A. H., 1677
Husain, D., 7, 1645, 1653, 2164, 2165
Ibeas, S., 3571
Ibrahimov, R., 515
Iglesias, J. E., 2515
Ihara, H., 659
Iida, M., 1773
Iida, Y., 3723
Ikami, J., 3371
Ikawa, S-i., 489
Ikeda, R., 827
Ilczyszyn, M., 2463
Ilett, D. J., 3833
Imai, Y., 3515
Imamura, S., 757
Inel, Y., 129
Inoue, S., 749
Ionov, S., 1419
Iordan, A., 2527
Ishida, S., 757
Ishiguro, S-i., 3055
Ishii, M., 749, 1383, 1783, 3105, 3635
Ishikawa, T., 3821
Islam, M. S., 3833
Ito, T., 757, 1263
Iu, K-K., 1861
Ivanov, S. A., 1707
Iwahashi, M., 707
Iwai, S., 827
Iwamoto, E., 535
Iwamoto, M., 3513
Iwasaki, M., 771
Iwuoha, E. I., 1361, 3921
Iyer, R. M., 1143
Jackson, D. E., 179
Jackson, P. J., 2945
Jackson, R. M., 2707
Jacob, K-H., 1101
Jacobs, W. P. J. H., 1271
Jacobsson, U., 2791
Jacques, C., 1419
Jacques, P., 4267, 4271
Jaeger, N. I., 3987
Jäger, W., 1899
Jagod, M-F., 2147
Jakubetz, W., 1481
Jalink, C. J., 1677
Jallabert, C., 457
Jasiński, T., 119
Jaskólski, M., 2085
Jayakumar, R., 3075
Jenkin, M. E., 433, 2983, 2993
Jenkins, A. A., 3427
Jenkins, T. C., 2651
Jenneskens, L. W., 2403
Jenniskens, P., 2306, 2307, 2317
Jha, R., 3465
Jia, C., 3659
Jiang, X., 223
Jing, Y., 4171
Jirák, Z., 1833
Johansson, Å., 49
Johari, G. P., 3477
Johnson, A. L., 3331
Johnson, D. G., 4185
Johnson, E., 397
Johnston, P., 863, 3099
Johnston, R. L., 1659
Jones, K. N., 2231
Jones, M. N., 1963, 4407
Jonsson, M., 2791
Jonströmer, M., 1759
Joseph, J. C., 3491
Joshi, I. M., 1737
Joslin, E., 2345
Joyner, R. W., 863, 3099
Jutson, N. J., 3963
Kabir, M., 1653
Kaizaki, S., 1773
Kajinami, A., 3805, 3811
Kakhu, A. I., 3767
Kaliaguine, S., 4141, 4231
Kamat, P. V., 2397
Kamble, V. S., 1143
Kamiya, N., 489
Kamo, M., 749, 1383, 1783, 3105, 3635
Kanaji, Y., 3805, 3811
Kandori, K., 3821
Kaneda, A., 3611
Kaneko, H., 851
Kang, Y. S., 1377, 4085
Kanige, K., 251
Kappenstein, C., 2527
Karayianni, E., 965
Karolin, J., 49
Kartha, V. B., 1143
Kataky, R., 369
Kato, K., 659
Kaur, H., 1737
Kaur, T., 1737
Kawaguchi, K., 2166
Kawaguchi, M., 2467
Kawalek, M., 1829
Kawamura, S., 3039
Kawamura, T., 3641
Kawano, Y., 1057
Kawasaki, M., 1263
Kawazoe, Y., 4181
Kazansky, V. B., 1393
Kelsall, G. H., 267
Kemball, C., 585, 1095, 2519

Kendrick, J., 2107
Kennedy, B. J., 151
Kenyon, A. J., 3877
Kerr, J. C. H., 277
Kevan, L., 1377, 2063, 2559, 4085, 4137, 4397
Khan, A. N., 3843
Khodakov, A. Yu., 1393
Khoo, K. H., 1353
Khusid, B. M., 727
Kim, K., 837
King, D. A., 3331
Kira, A., 3433
Kirby, E. C., 1945
Kiricsi, I., 4221
Kirkpatrick, R. J., 3297
Kirsch-De Mesmaeker, A., 3261
Kita, H., 2067
Kittaka, S., 3827
Klingler, R. J., 3591
Klinowski, J., 4245
Klofutar, C., 3065
Knözinger, E., 1101
Kobayashi, H., 707
Kobayashi, J-i., 3723
Kocian, O., 333
Kodo, T., 3243
Köhler, K., 1809
Kohno, M., 4181
Koide, M., 3055
Koide, R., 3177
Koine, N., 1773
Kojima, H., 2743
Kong, F., 1779
Konturri, A. K., 99
Konturri, K., 99
Kordulis, C., 3645
Koresh, J. E., 935, 2059
Körtvélyesi, T., 447
Kosanović, C., 1817
Kosmas, A. M., 2999
Kosslick, H., 1131
Koutsoukos, P. G., 965, 3645
Kramer, G. F. H., 2595
Krätschmer, W., 2285, 2305, 2317, 2320
Kroes, G. J., 2258
Kroto, H. W., 2164, 2168, 2170, 2306, 2314, 2320, 3541
Kuchel, P. W., 2807
Kulbida, A., 4257
Kumamaru, T., 535
Kumar, A., 639
Kumar, D., 2423
Kumar, M., 495
Kumaraswamy, V. S., 2677
Kuncaka, A., 4299
Kuo, Y-C., 1229
Kupiszewska, D., 2951
Kurahashi, M., 3611
Kuroda, Y., 2041
Kurotaki, K., 3039
Kushihashi, K., 2537
Kustov, L. M., 1393
Kusy, R. P., 361
Lahmani, F., 623
Lakin, N. M., 3205
Lam, H. N., 1969
Lambert, C. R., 1753
Lambert, I. R., 3865
Lampreia, I. M. S., 3761
Lancaster, N. M., 77
Land, E. J., 803
Lane, I. C., 1179
Langer, S., 425, 2977
Langford, M. L., 1637
Langhals, H., 49
Langley, A., 2385
Lanza, G., 2961
Larsson, M., 2216
Latham, R. J., 349
Laughton, C. A., 2651
Laurent, Y., 3111
LaVerne, J. A., 3527
Lawley, K. P., 1885
Lawrence, K. G., 3381
Lazana, M. C. R. L. R., 1327
Lazzarini, E., 3737
Leach, C. A., 603
Leach, S., 2164, 2214, 2257, 2305, 2306, 2312, 2314, 2316, 2318, 2319
Leaist, D. G., 515, 2775
Leal, J. M., 3571
Leaver, J., 3419
Lecomte, J-P., 3261
Lee, A. M., 3999
Lee, C. W., 4137
Lee, E. P. F., 645
Lee, W., 2308
Leggett, G. J., 179
Legon, A. C., 397, 1173, 2937, 3319, 4157
Lehmann, M. S., 2701
Lehto, J., 971, 1877
Lemmetyinen, H., 869
Lendzian, F., 2853
Lennon, A. J., 2807
Leofanti, G., 4123
Leone, S. R., 1401
Leong, Y. K., 2473
LePeltier, F., 159
Lerner, B. A., 1799
Lesclaux, R., 2993
Lesk, A. M., 2603
Levelt, P. F., 2162
Levick, A. P., 177
Lewandowski, A., 2007, 2015, 3553
Lewin, A. K., 3857
Lhermet, C., 1223
Lhomme, J., 3261
Li, G., 1365
Li, H-X., 951, 957
Li, J., 1683
Li, X., 3641, 4115
Liang, Y., 1365
Liedl, K. R., 2375
Liegener, C. M., 1637
Lileev, A. S., 1985
Lilley, T. H., 4283
Lin, A. S., 195
Lincoln, S. F., 1035
Lindley, P., 2677
Lindner, E., 361
Lindner, P., 4207
Linford, R. G., 349
Litter, M. I., 1049
Liu, B-T., 1689
Liu, G., 811
Liu, J., 4171
Liu, W., 1741
Liu, Xinhou, 2969
Liu, Xinsheng, 1861
Liveri, M. L. T., 1373
Ljungström, E., 425, 2977
Lloyd, M. J., 77
Lo Celso, F., 3407
Loh, W., 113
Lohse, U., 1277
Long, Y., 1839
Lorenzelli, V., 1071, 3111
Louati, A., 4299
Loubnin, E. N., 1707
Loukah, M., 2545
Loveday, D. C., 3941
Lu, J., 1741
Lucas, J. M., 1587
Luckhurst, G. R., 3289, 3783
Ludwig, R., 3955
Luo, Y-Z., 539
Lyashchenko, A. K., 1985
Lycourghiotis, A., 3157, 3645, 4101
Lynch, J., 159
Ma, P., 4171
Mabbs, F. E., 3695, 3705
Mabuchi, M., 3611, 4375
Macedo, M. J., 43
MacElroy, J. M. D., 1151
Maciejewska-Urjasz, H., 1211
Maciejewski, A., 3251
Mackie, A. R., 2755
Mackrodt, W. C., 4369
Maclagan, R. G. A. R., 3325
Macmillan, M. G., 3817
Macpherson, J. V., 1883
Maddox, M. W., 3619
Maeda, M., 3371
Maeda, T., 4375
Maes, F., 3691
Magnacca, G., 135
Magoński, J., 119
Mahdyarfar, A., 3099
Maitland, G., 1527
Maitra, A., 3585
Maity, D. K., 95, 477
Malavašič, M., 2445
Malet, P., 1071
Malinska, J., 2015
Mallion, R. B., 1945
Man, P. P., 1823
Manceron, L., 1291
Mandal, A. B., 3075
Mann, S., 2891
Manoli, J-M., 857
Mansurov, V. A., 727
Marchal, C., 3301
Marchese, L., 3483, 3715
Marcheselli, L., 123
Marchetti, A., 1357, 3043
Marcus, Y., 713, 2437, 3271
Mariani, M., 3737
Markovitsi, D., 37, 457
Marshall, P., 419
Marston, G., 3899
Martin, A., 1277
Martín, C., 1071, 4131
Martin, I., 4131
Martin, S. R., 3395
Martin-Delgado, M. J., 43
Martinez, M. T., 1645
Martra, G., 1121, 3483, 3715
Maruyama, K., 3243
Masatoki, S., 4079
Maskell, W. C., 3427
Mason, B. P., 411, 4405
Massiani, P., 3659
Massucci, M., 77, 1345, 3375, 4193
Mastikhin, V. M., 4239
Masuda, T., 771
Matralis, H., 3157
Matsuda, T., 2041
Matsuura, H., 4079
Matsuura, K., 1993
Matsuzaki, I., 4279
Matsuzawa, H., 707
Matthew, J. A. D., 1397
Matthews, G. P., 3545
Matusek, K., 3137
May, B. L., 1035
Mazo, R. M., 3183
McAuley-Hecht, K. E., 2693
McCaffery, A. J., 3217, 3877
McCarroll, W. H., 3603
McCoubrey, J., 3767
McDouall, J. J. W., 2631
McDougall, G. S., 1095
McDowell, S. A. C., 4253
McGarvey, D., 2385
McGeein, D. J., 1671
McGlinchey, M. J., 3331
McKendrick, K. G., 405, 1527
McMahon, A. J., 4407
McManus, H. J. D., 4085
McMaster, T. J., 2589
McQuire, M. W., 1117
Meadows, G., 3849
Medina, F., 3507, 3981
Meleleo, A., 1215
Menéndez, M., 1493
Mengual, J. I., 4333
Merle-Méjean, T., 3111
Merzhanov, A. G., 727
Mestdagh, J. M., 1413
Meyerstein, D., 4045
Meynadier, P., 1413
Migron, Y., 2437, 3271
Miles, J. R., 2269, 2307
Miles, M. J., 2589
Millar, G. J., 1109
Millar, T. J., 2161, 2166, 2168, 2213, 2311
Millefiori, A., 2961
Millefiori, S., 2961
Miller, B., 273
Miller, R. L., 1443, 3667
Miller, S., 2155, 2167, 2171, 2216
Millié, P., 457
Mills, A., 3389, 3849
Minas da Piedade, M. E., 3541
Mishima, S., 4279
Mishra, S. P., 3257
Mitchell, J. B. O., 2619
Mitchell, P. C. H., 1805, 3963
Mittal, J. P., 95, 477, 639, 683
Miyake, M., 2095
Miyake, Y., 1993
Miyasaka, K., 3433
Miyauchi, Y., 3515
Miyazaki, T., 659
Miyazaki, Y., 3925
Mizuhata, M., 3805, 3811
Mizuno, N., 3513
Möbius, K., 2853
Moctezuma, A., 3363
Moens, P., 3691
Mohamed, A. A., 3353
Mohan, H., 95, 477
Molero, M., 1315
Mollaaghababa, R., 2125
Mondello, N., 601
Monk, P. M. S., 219
Monks, P. S., 3899
Monnerville, M., 1579
Moore, E. A., 693
Moortgat, G. K., 2983
Morales, M., 3773
Morazzoni, F., 3711
Mordaunt, D. H., 3865
Morel, J-P., 1223
Morel-Desrosiers, N., 1223
Morikawa, A., 4225
Moriyama, H., 3515
Mörke, W., 1085
Morlet-Savary, F., 465
Morley, G. P., 3865
Morley, J. O., 1671
Morley, W. G., 2823
Morozova, O. V., 1707
Morris, V. J., 2595
Morterra, C., 135
Mortimer, M., 693
Mortimer, R., 3603
Mortimer, R. J., 333
Mosquera, M., 885
Moss, R. E., 603, 3851
Mostany, J., 255
Motheo, A. J., 811
Moulik, S. P., 3277
Mount, A. R., 327, 2487
Mudrakovskii, I. L., 4239
Mukherjee, T., 683
Mukovozov, I. E., 3727
Müller-Dethlefs, K., 1609
Murai, H., 2369
Murphy, D., 3715
Murrell, J. N., 1659
Murrells, T. P., 433
Murthy, S. S. N., 509, 2423
Musashi, Y., 659
Mustafa, S., 3843
Myers, A. L., 3491
Myles, D., 2677
Nagao, M., 2041
Nagata, K., 3811
Nagle, H. T., 361
Naik, P. D., 639
Naito, S., 4375
Najmudin, S., 2677
Nakai, Y., 2467
Nakajima, T., 4279
Nakamura, A., 2095
Nakamura, D., 827
Nakamura, N., 1339
Nakamura, S-y., 3805
Nakamura, T., 3723
Nakano, T., 749
Nakayama, T., 3243
Nalewajski, R. F., 3885
Nandi, C. L., 2619
Nanshow, H., 3243
Narayanan, S., 943
Narducci, D., 3711
Naruta, Y., 3243
Nath, J., 2429
Natio, S., 3611
Naulin, C., 1501
Naves de Brito, A., 1637
Nayak, S. K., 509
Nechvatal, A., 2107
Néel, J., 4339, 4347
Neidle, S., 2651
Neilson, G. W., 2927
Nelson, A., 2799, 3081
Nelson, D. J., 1955
Nenner, I., 2165, 2211, 2289
Neta, P., 495
Neumark, D. M., 1449
Newall, J. F., 1963
Neya, S., 4355
Nguyen, M. T., 2381
Nguyen, Q. T., 4339, 4347
Nicholas, C. V., 539
Nicholson, D., 1397, 2499
Nickel, U., 229, 2479
Niedzielski, J., 655
Nikitin, E. E., 1567
Nishimoto, J., 535
Nishimura, N., 703
Nishinaka, M., 3459
Nolan, L. M. A., 2839
Nomura, M., 595
Norden, B., 2791
Norman, D., 3331
Novo, M., 885
Novskova, T. A., 1975, 1985
Nunzi, J-M., 37
Nyman, G., 2213, 2215
Oates, G., 693
Odriozola, J. A., 3307, 3623
Ogata, Y., 771
Ogawa, H., 4387
O'Grady, W. E., 195
Oh, S., 1733
Ohashi, N., 3105
Ohkubo, K., 659
Oka, T., 2147, 2166, 2170, 2171, 2172, 2216, 2255
Okabayashi, H., 2743
Okahata, Y., 2031
Okamoto, T., 4181
Okonjo, K. O., 1361, 3921
Oku, M., 743
Olejnik, J., 1211
Oliva, C., 3727, 4215
Oliver, P., 2891
Olofsson, H., 2257
O'Malley, P. J., 983
Omont, A., 2137, 2165, 2166, 2255
Ono, Y., 595, 3177
Ori, A., 29
Orpen, A. G., 4115
Ortiz de Zárate, J. M., 4333
Orton, R., 3947
Otero Areán, C., 1843
Otsuka, K., 1791, 4225
Ouellette, D. C., 1193
Ouqour, A., 2545, 3151
Outhwaite, C. W., 1315
Overton, T. L., 843, 4393
Owari, T., 1993
Owusu, R. K., 865
Paál, Z., 3137
Pac, C., 1857
Pace, R. J., 2863
Pacheco Tanaka, D. A., 2727
Padget, J. C., 1235, 1243
Padovan, M., 4123
Pais, A. A. C. C., 1511, 3885
Pal, H., 683
Palit, D. K., 95, 683
Paljk, Š., 3065
Palmieri, P., 4005
Pandian, R. P., 677
Papadopoulou, Ch., 3157
Papoular, R., 2165, 2257, 2289, 2310, 2315, 2317
Parker, A. W., 1753, 2873
Parker, K., 2637

Parlitz, B., 1131
Parmaliana, A., 601
Parmon, V. N., 4017
Parr, A. D., 4163
Parry, D. E., 2107, 2945
Parsons, B. J., 4185
Parsons, I. W., 25
Parsons, R., 181
Partridge, R., 1285
Patel, M. S., 783
Patterson, D., 81, 89
Paul, S., 1505
Pawlak, Z., 119
Pay, N. G. M., 2417
Payen, E., 1805
Peat, R., 181
Peck, T. G., 4313
Pelan, E. G., 3453
Pellenq, R. J-M., 2499
Peltre, M. J., 1823
Peña, L., 4333
Perchard, J. P., 1291
Pérez-Casas, S., 89
Perez Jigato, M., 3331
Pérez Omil, J. A., 3499
Pérez-Tejeda, P., 2011
Perjéssy, A., 4199
Petch, B., 4369
Petrini, G., 4123
Peuker, C., 1131
Pezler, B., 655
Pfeffer, N., 37
Pfeifer, H., 3995
Phillips, D., 2345
Phillips, L. F., 1183
Pickup, P. G., 321
Pilling, M. J., 2214, 2215
Pillinger, C. T., 2297, 2320
Pilloud, D., 4271
Pimblott, S. M., 471, 1299, 3527, 3533
Pinheiro, T. J. T., 3117
Pintado, J. M., 3499
Pirani, F., 1467
Plane, J. M. C., 763, 2211
Plato, M., 2853
Pola, J., 3907
Polborn, K., 49
Pollak, P., 1945
Pollock, D. S., 1183
Pope, C. G., 1139
Pope, J., 2583
Popov, A. V., 1707
Pöppl, A., 2063
Porte, A. L., 4149
Possemiers, K., 2037
Pothuis, J. H., 971, 1877
Potter, R. J., 3963
Potvin, C., 857
Powell, J. G., 3603
Powis, I., 1179
Price, C., 539, 1235, 1243, 3471
Price, J., 3395
Price, S. L., 2619, 3407
Prieto, F. R., 885
Prieto, G., 1963
Primerano, P., 171
Primet, M., 3313
Puyuelo, P., 2337
Pynenburg, R. A. J., 349
Qian, J., 1457
Quintard, P., 3111
Quintella, C. M., 3877
Raaymakers, J. E. M. J., 2403
Rabold, A., 1733
Racioppoli, F., 503
Radulović, S., 1041
Raghavan, K., 1151
Rahimi, R., 495
Rai, U. S., 1199
Ralston, J., 817
Ramamurthy, P., 465
Ramanujachary, K. V., 3603
Rama Rao, K. V. S., 639
Ramasami, T., 3075
Ramis, G., 1071
Ramsay, J. D. F., 4207
Rao, G., 2391
Rastelli, A., 29, 3913
Rathke, J. W., 3591
Ravey, J-C., 927
Ray, S., 3277
Rayez, J. C., 1579
Raymond, K. S., 665
Redondo, A., 287
Rees, L. V. C., 1063, 3169
Rego, C. A., 1173
Rehana, N., 3843
Reichherzer, S., 49
Remko, M., 1321, 2375
Ren, X., 321
Renger, M., 1539
Rennie, A. J. O., 2023
Reynaud, C., 2289
Rhodes, C. J., 1283
Rhodes, C. N., 1387
Rhodes, N. P., 2551
Ribeiro Carrott, M., 579
Ricchiardi, G., 1843
Richter, U-B., 891
Ridgway, C., 333
Riga, J., 2509
Rigby, K., 3695
Ringsdorf, H., 37
Risbud, S. H., 3297
Rishpon, J., 287
Rived, F., 1723
Rivera, S., 3773
Rives, V., 1071, 4131
Rochester, C. H., 1109, 1117
Rode, B. M., 1321, 2375
Rodrigo, M. T., 3651
Roduner, E., 2101
Roewer, G., 1085
Roginskaya, Yu. E., 1707
Romagnolo, J., 1049
Romani, A., 699
Romeo, S., 187
Romero, J., 1179
Rosamilia, J. M., 273
Rosés, M., 1723
Rosseinsky, D. R., 219, 3091
Rosser, K. N., 391
Rost, J-M., 1539
Rostas, F., 2163
Rourke, F., 295
Rowe, B. R., 2193
Rowlinson, J. S., 3619
Rubahn, H-G., 1539
Rubinstein, I., 287
Rudge, A., 287
Rudham, R., 1867, 2551
Rühl, E., 3331
Rumbles, G., 4013
Rusin, L. Y., 1475
Russell, A. E., 195
Russell, S. S., 2297
Ryo, Y., 2467
Sabatani, E., 287
Sabougni, M-L., 3591
Sacco, A., 1215
Sachtler, W. M. H., 1799
Saini, G. S. S., 677
Saito, H., 3821
Saito, Y., 757, 3641
Sakai, T., 1773
Sakaki, S., 659
Sakata, T., 703
Sakka, T., 771
Sakuragi, H., 1021
Salagre, P., 3507, 3981
Salama, F., 2277, 2308
Salama, T. M., 2067
Salas, P., 1573
Saleh, H. J., 3217
Sanchez, J-Y., 355
Sánchez-Escribano, V., 1071
Sanchez Rayo, M. N., 1645
Santos, M., 3907
Sanz, J., 2515
Sanz, J. F., 3623
Sarkar, N., 1959
Sarmiento, F., 1963
Sarre, P. J., 177, 2269, 2307, 2316, 2318
Satake, T., 3611
Sato, H., 1001
Sato, S., 4387
Sato, T., 995
Sato, Y., 749, 1383, 1783, 3105, 3635
Savage, H. J., 2609
Saville, D. A., 527
Savonen, A., 99
Sawunyama, P., 3389
Sawyer, L., 2683
Sayos, R., 1427, 3223
Sbriziolo, C., 1373
Scales, P. J., 2473
Scarano, D., 1127, 1843, 4123
Schaetzel, P., 4339, 4347
Scharifker, B. R., 255
Schiffrin, D. J., 99, 199
Schifino, J., 1645
Schild, H., 2155
Schläpfer, C. W., 1809
Schlemmer, S., 1475
Schlier, C., 1533
Schlindwein, W. S., 349
Schlüpmann, J., 2853
Schmal, M., 3975
Schmidt, A. B., 739
Schmuttenmaer, C. A., 1457
Schöllner, R., 1871
Schuler, R. H., 4177
Schulz-Ekloff, G., 3987
Schwarz, J. A., 2075, 4091
Schwerdtfeger, P., 3015
Scott, G. B. I., 1183
Scott, S. K., 869
Scotti, R., 3711
Sears, T. J., 615
Secco, F., 719
Seeger, S., 2219
Segall, J., 1419
Sekigawa, T., 489
Selli, E., 4215
Selve, C., 927
Seres, L., 447
Serruya, A., 255
Shafran, A., 3271
Shah, D. B., 3161
Shah, D. O., 3585
Shaik, S., 4045
Shaikhutdinov, S. K., 3959
Shallcross, D. E., 4163
Shalliker, S. J., 433
Shannon, I. J., 2023, 3099
Shao, Y., 4307
Sharkey, P., 631
Sharma, P. K., 4013
Sharpe, N. W., 873
Shaw, N., 1623
Shea, W-L., 3143
Shen, D., 1063
Shen, J., 1079
Shergill, J. K., 3685
Sherwood, P. M. A., 263
Shihira, Y., 995
Shimizu, Y., 1001, 1667
Shimosaki, S., 3105
Shiragami, T., 1857
Shizuka, H., 3007
Shpiro, E. S., 3987
Shraydeh, B., 531
Shulman, Z. P., 727
Shupik, A. N., 3959
Shy, D-S., 3841
Sigüenza, C. L., 3907
Silva, R. R. C. M., 3975
Simeonov, S. A., 3907
Simons, J. P., 1435, 2161, 2210
Sims, I. R., 1, 2166, 2193, 2212, 2213, 2214, 2217
Sing, K. S. W., 579
Singh, J., 1737, 2619, 3955
Sircar, S., 3491
Škvarla, J., 2913
Slingsby, C., 2677
Smeyers, Y. G., 43
Smith, C. J., 1401
Smith, D. J., 1487
Smith, I. W. M., 1, 631, 2161, 2166, 2169, 2212, 2213, 2214, 2355, 4251
Smith, J. G., 397
Smith, J. R., 2783
Smith, J. W., 3123
Smith, M. A., 2209, 2210, 2216
Smith, P. J., 2863
Snarey, M., 2619
Söderman, O., 1759
Sokołowski, S., 789
Solar, S., 891
Sommerville, W. B., 2261, 2305, 2306, 2307, 2308, 2316, 2318
Son, D. H., 837
Sondermann, F., 1475
Song, L., 3443
Soria, J., 2515
Soria, V., 1765
Southmayd, D. W., 2075
Spain, E. M., 1401
Spanos, N., 4101
Spencer-Smith, R. D., 2355
Sperry, J. A., 4327
Spikes, H. A., 267
Spiro, M., 229, 1203, 4035
Spoto, G., 1843, 4123
Squire, J. M., 2717
Sreekanth, G., 943
Srivastava, R. C., 905
Staudte, B., 3995
Stébé, M-J., 927
Steele, D., 3597
Steer, R. P., 3251
Steimle, T. C., 603
Steiner, E., 1915
Stepto, R. F. T., 1397
Stoeckli, F., 939, 2055
Stoecklin, T. S., 2185
Stohner, J., 2381
Stolte, S., 1551, 2162, 2213, 2258
Storek, W., 1131
Stratford, S. E., 4115
Strzelecka, H., 457
Styger, C., 1899
Su, B. L., 857
Sublemontier, O., 1413
Subotić, B., 1817
Südi, J., 3681
Sudkeaw, P., 3325
Sueiras, J. E., 3507, 3981
Suematsu, K., 4181
Suero, M. I., 43
Sueros Velarde, F. J., 2727
Suits, A. G., 1413, 1443, 3667
Sukharev, V. Ya., 559
Sumida, H., 3827
Sun, Y., 1839
Sünnetçioloğlu, M. M., 3791
Suppan, P., 4271
Sutcliffe, B. T., 2321
Sutcliffe, L. H., 3183
Sutter, T. P. G., 495
Suzuki, H., 3055
Suzuki, Takahashi, 2095, 2901
Suzuki, Teruaki, 995
Suzuki, Toru, 3283
Svensson, S., 1637
Svistunenko, D. A., 3071
Swann, M. J., 921
Swerts, J., 63
Symons, M. C. R., 59, 1199, 1285, 1955, 2417, 2923, 3071
Szafran, M., 2085
Szymanski, M., 3251
Taatjes, C. A., 1551
Tabata, M., 3513
Tachikawa, H., 2369
Taddei, G., 1749
Taga, K., 2743
Tagliazucchi, M., 1357, 3043
Taiwo, F. A., 3071
Takahashi, M., 2791
Takahashi, S., 3591
Takasu, Y., 4387
Takeda, T, 4249
Talu, O., 1683
Tamamushi, R., 4249
Tamaura, Y., 851
Tamori, Y., 1001, 1667
Tan, S. N., 4307
Tanaka, J., 3105
Tanaka, K., 2031, 4249
Tanaka, T., 2067, 3177
Tancic, Z., 2391
Tang, X., 1839
Tanioka, A., 3433
Tanizawa, Y., 2901
Tappe, U., 1475
Tardajos, G., 89
Tarroni, R., 2815, 4005
Tarumoto, H., 757
Tashiro, T., 1263
Tasi, G., 4221
Tassi, L., 123, 733, 1357, 3043
Tawarah, K. M., 1729
Taylor, M. J., 3597
Taylor, R., 3541
Teixeira-Dias, J. J. C., 3235
Tendler, S. J. B., 179
Tennyson, J., 2155, 2167, 2211
Teramoto, M., 1993
Termignone, G., 3727
Terskikh, V. V., 4239
Tétényi, P., 3137
Thaddeus, P., 2125, 2163, 2167, 2256, 2308
Theocharis, C. R., 2107
Thomas, J. K., 1861
Thomas, J. M., 2017
Thomas, K. G., 2397
Thomas, S., 263
Thompsett, D., 3963
Thompson, K. M., 1203, 4035
Thorn, J. C., 397, 3319, 4157
Thornton, J. M., 2619
Thouvenot, R., 3301
Tian, Y., 1365
Tiddy, G. J. T., 2823
Till, S. J., 25
Tkachenko, O. P., 3987
Tláskal, J., 3907
Toennies, J. P., 1475
Toi, K., 1263
Tokumaru, K., 1001, 1021
Tombari, E., 3477
Tomellini, M., 3629
Tominaga, T., 3459
Tomkinson, J., 1805
Tondello, E., 4363
Tonegutti, C. A., 113
Toriumi, K., 3437
Torsi, L., 3941
Toshima, N., 2537
Tosi, G., 123, 1357, 3043
Tosi, P., 2215
Tournayan, L., 3313
Townsend, R. P., 971, 977, 1877
Tozzola, G., 4123
Trasatti, S., 187, 1707
Treffry, T. E., 4283
Treichel, J. A., 3407
Trejo, L. M., 89
Trinquier, G., 775
Tripathi, G. N. R., 4177
Trombetti, A., 4005
Tromp, R. H., 2927
Trukhan, E. M., 3959
Truscott, T. G., 1753
Tsang, S. C., 1089, 1189
Tsuji, M., 851
Tsunashima, S., 995
Tuan, V. A., 1131
Turner, B., 397
Turner, D., 2107
Turner, S. S., 3705
Turulski, J., 655
Tye, F. L., 3427
Ubachs, W., 2165
Ubortsev, A. D., 727
Uehara, T., 2743
Uematsu, T., 3513
Ueshiba, R., 4355
Ufer, S., 361
Ufret, R., 3773
Ukisu, Y., 4387

Ulitina, Yu. I., 1707
Umemoto, H., 995
Umezawa, K., 3723
Umrania, Y., 3407
Unwin, P. R., 1883, 3947
Urbachs, W., 2162
Urch, D. S., 3183
Urquhart, R., 2031
Usuelli, M., 187
Vadgama, P., 2847
Vairamani, M., 2945
Valachovic, L., 1419
Van Der Voort, P., 63, 2037, 2509
van Dishoeck, E. F., 2161, 2172
Van Doorslaer, S., 3691
van Lenthe, J. H., 2209, 2239
Vanquickenborne, L. G., 2381
van Ramesdonk, H. J., 2403
Vansant, E. F., 63, 2037, 2509
van Santen, R. A., 1271
van Stam, J., 1759
van Tra, H., 89
van Wolput, J. H. M. C., 1271
Varandas, A. J. C., 1511, 3885
Varma, C. A. G. O., 1677
Vatsa, R. K., 639
Vatti, F. P., 4381
Vayssilov, G. N., 2049
Veber, M., 457
Vecchiocattivi, F., 1505
Vedrine, J. C., 2545, 3151
Vela, A., 2441
Velázquez, B., 3363
Venturini, M., 719
Verbeek, M., 1539
Verdasco, E., 1493
Verhey, H. J., 2403
Verhoeven, J. W., 2403
Verma, A. L., 677
Vesnaver, G., 2445
Veyret, B., 2993
Viant, M. R., 603
Vikulov, K., 1121, 1127
Villain, F., 159
Vincent, C. A., 3187
Vincent, M. A., 2631
Vine, M. D., 69
Viseu, M. I., 1925
Vishniakov, A. V., 3727
Visticot, J. P., 1413
Vittadini, A., 4363
Vogelsang, J., 15
Vogt, F., 1085
Volkova, N. N., 1351
Vollárová, O., 1745
Volpe, P. L. O., 113
Volpi, G. G., 1505
von Füner, N., 49
von Zelewsky, A., 1809
Vos, J. G., 1695
Vrancken, K. C., 63, 2037, 2509
Vrtilek, J. M., 2125
Vuoristo, M., 99
Wadsö, I., 1351
Waghorne, W. E., 3381
Wahnón, P., 1573
Waki, H., 3925
Wakisaka, A., 1001, 1667
Waldeck, A. R., 2807
Wales, D. J., 1305
Wallwork, A. L., 397, 2937
Walmsley, C. M., 2119, 2164
Walsh, R., 411, 4405
Walter, H., 1085
Walter, W. K., 3331
Walton, D. R. M., 3541
Wan-Badhi, W. A., 2737
Wang, J., 1741
Wang, L., 1839
Wang, Q-Y., 391
Wang, Y., 4225
Wängberg, I., 425, 2977
Wannberg, B., 1637
Wan-Yunus, W. M. Z., 2737
Wark, M., 3987
Watanabe, K., 2095
Watanabe, T., 1263
Watson, A., 1527
Watson, J. K. G., 2164, 2166, 2170, 2172
Waugh, K. C., 1109
Wayne, R. P., 3899, 4163
Wazwaz, A. A., 1729
Wdowiak, T. J., 2306, 2308, 2319
Weaver, M. J., 223
Webster, A. S., 2306
Webster, B. C., 1283
Webster, M. B., 2023
Weiner, J. H., 3685
Weisgerber, S., 2667
Wells, C. F., 3565
Wen, Y., 1419
Wendlandt, K-P., 1085
West, Y. D., 603
Westbroek, P., 2891
Western, C. M., 391, 1153, 2337, 3865
Wheeler, R. A., 665
Whitaker, B. J., 2951
White, J. W., 277
Whitehead, J. C., 869, 1287
Whitehouse, D. B., 1909
Whitham, C. J., 177
Whitley, A., 881
Wickham, A. G., 2185
Wijekoon, W. M. K. P., 1067
Wilde, C. P., 385
Wilde, P. J., 2755
Wilkinson, F., 2385
Williams, A., 865
Williams, C., 1393
Williams, D. A., 2161, 2169
Williams, R., 2869
Williamson, G., 2595
Wilson, D. R., 2755
Wilson, S. H. S., 3865
Wittig, C., 1419
Wolf, U., 1277
Wolfe, J., 2583
Wormald, C. J., 69, 77, 1345, 3375, 4193
Worrall, D., 2385
Wright, T. G., 1609
Wu, B., 4171
Wu, L-M., 2101
Wu, M., 615
Wu, T., 1839
Wu, X., 1779
Wyatt, J. L., 1199, 1285, 1955
Wyn-Jones, E., 2737
Xu, C., 1291
Xu, H-J., 3347
Yagi, N., 2717
Yamada, O., 749
Yamamoto, K., 3635
Yamamoto, M., 3611, 4375
Yamamoto, S., 703
Yamanaka, I., 1791, 4225
Yamashita, K., 2175, 2209
Yan, L., 4193
Yan, Z., 2583
Yanagida, S., 1857
Yang, Z., 1235, 1243
Yao, Z., 81
Yarwood, J., 881
Yasukawa, A., 3821
Yellowlees, L. J., 207
Yim, S-G., 837
Yonezawa, T., 2537
York, A. P. E., 1089
Yoshida, H., 2369
Yoshida, S., 3177
Yoshida, T., 2743
Yu, H., 2345
Yu, J-S., 4397
Yu, Z., 1779
Yukawa, K., 3641
Zaccaï, G., 2659
Zaki, M. I., 2527
Zamadics, M., 4137
Zaman, M. R., 3257
Zambonin, P. G., 3941
Zannoni, C., 2815, 4069
Zasetsky, A. Yu., 1985
Zecchina, A., 1127, 1843, 3483, 3715, 4123
Zehnacker-Rentien, A., 623
Zeidler, M. D., 3955
Zhang, H., 2833
Zhang, M., 385
Zhang, N., 1779
Zhang, X-F., 3347
Zhang, Z., 1799
Zhao, Y., 1449
Zhou, Z-K., 539
Zhu, Q., 1779
Zhu, Y., 267
Zhu, Z. Z., 1487
Zhurov, V. V., 1707
Zidan, M. D., 3877
Zundel, G., 1211, 1733

Subject Index 1993

A.c. impedance
A.c. impedance study of rate constants for two-phase electron-transfer reactions, 199
***Ab initio* calculation**
Kinetic studies and *ab initio* investigations of the reactions of atomic bromine with methylsilane and dimethylsilane, 419
Accurate adiabatic energy surfaces for the ground and first excited states of He_2^+, 645
Structures and binding energies of benzene–methane and benzene–benzene complexes. An *ab initio* SCF/MP2 study, 659
Structure, bonding and vibrational modes of the *p*-aminophenoxyl radical and *p*-benzosemiquinone radical anion from *ab initio* molecular orbital calculations, 665
Group 14 methylene–methane-type complexes: A theoretical study, 775
An *ab initio* investigation of the molecular structure and vibrational spectrum of the silanol–hydrogen molecular complex, 983
Theoretical studies of several electronic states of the NO_2^- anion, 991
Effects of external ions on the energetics of proton transfer in hydrogen-bonded systems modelling a membrane-active drug–receptor interaction, 1321
Theoretical investigation of the structure and spectra of donor–acceptor azobenzenes, 1671
Calculations of interstellar radiative association rates including tunnelling: The strange case of $C_2H_2^+ + H_2$, 2175
Ab initio calculations on molecules of interest to interstellar cloud chemistry, 2219
Quantum-chemical study of the $CH_4 \cdots HCl$ complex, 2363
Structures and electronic states of ion-pair complexes formed between a carbonyl compound and a sodium atom. An *ab initio* molecular orbital and MRSDCI study, 2369
Structure and acidity of carbamic acid, and its thio, dithio and sila derivatives, 2375
Structure and conformation of chlorosulfonylisocyanate and cyclopropylisocyanate, 2381
Radicals containing both a phosphoranylidene and a ketone group: An electron paramagnetic resonance/electron nuclear double resonance study of their structure and *ab initio* investigations on the captodative effects, 2391
Rotation about the C—N bond in formamide: An *ab initio* molecular orbital study of structure and energetics in the gas phase and in solution, 2631
Geometries and energies of small Ge_n (n = 2–6) clusters: An *ab initio* molecular orbital study, 2961
New *ab initio* three-dimensional potential of $BeHF(^1A')$, 2969
Conformers, vibrational spectra and laser-induced rotamerization of $CH_2ClCOOH$, 3235
Ab initio study of C_nO, C_nO^+ and C_nHO^+ species, 3325
Crystal structure determination of $C_3Cl_3^+AlCl_4^-$ and *ab initio* studies of the structure and vibrational spectrum of the trichlorocyclopropenium cation, 3597
Density functional study of the tetraoxometallates of Cr^{VI}, Mn^{VI} and Fe^{VI}, 3745
Model calculations of chemical interactions. Part 6.—Origin of diastereofacial selectivity in 1,3-dipolar cyloaddition of formonitrile oxide with bicyclo[2,1,0]pent-2-ene and 2,3-dioxabicyclo[2,2,2]oct-5-ene, 3913
Theoretical study of the electroreduction of halogenated aromatic compounds. Part 2.—Bromine and chlorine derivatives in different organic solvents, 3931
Vibrational frequency shifts in $OC \cdots HF$ and $N_2 \cdots HF$, 4253
Absorption
Solvatochromism of a typical merocyanine dye. Further investigations, 55
Electron paramagnetic resonance and electron spin echo modulation spectroscopic studies on the location and absorbate interactions of paramagnetic Pd ion species in Pd^{II}-exchanged K-L zeolite, 4397
Acetic acid
Adsorption and autocatalytic decomposition of acetic acid on Pd(110), 1249
Acid–base complex
Relation between the formation constant and the local structure of various bases and reference acids for the 1:1 hydrogen-bond complexation in aprotic solvents, 4279
Acid–base property
Acid–base properties of metallic oxide catalysts studied by conversion of propan-2-ol, 3151
Acidity
Influence of acidity on the fluorescence spectra of 2-pyridylbenzimidazoles in aqueous solution, 885
Activation parameter
Activation parameters and the influence of ionic strength upon the hexacyanoferrate(III)–iodide reaction in some aqueous organic media, 2011
Activity coefficient
Thermodynamics of micelle formation of some alkylpyridinium bromides, 2445
Adhesion
Problem of measuring steric interaction forces between surfaces bearing adsorbed layers of macromolecules in good solvents, 4059
Adiabatic energy surface
Accurate adiabatic energy surfaces for the ground and first excited states of He_2^+, 645
Adsorption
Adsorption of pentaerythritol at the mercury/aqueous sodium fluoride interphase, 181
In situ far-infrared evidence for a potential dependence of silver–water interactions, 195
Dynamic simulation of the adsorption of a flexible chain, 573
Infrared and quantitative adsorption study of coordinatively unsaturated cations on magnesium hydroxide, 579
Corrigendum to 'Interaction pathway of chloride ions with γ-Al_2O_3: Surface acidity and thermal stability of the Cl/γ-Al_2O_3 system, 601
Fourier-transform infrared spectroscopic study of acetonitrile adsorbed on silica-supported nickel and nickel oxide, 837
Acidity and location of cations (H^+, Na^+) in HEMT and NaEMT determined using benzene adsorption, 857
On the flexibility of the carbon skeleton, 935
Interaction of aqueous solutions of ammonia with carbons, 939
Phenol adsorption on ZnO (0001) probed by coherent anti-Stokes Raman scattering spectroscopy using guided waves, 1067
Fourier-transform infrared spectroscopic studies of the adsorption of ketene on silica, 1121
Fourier-transform infrared spectroscopic study of adsorption of ketene on zinc oxide, 1127
Adsorption of methanol and related molecules on zeolite H-ZSM-5 and silicalite, 1139
Adsorption and autocatalytic decomposition of acetic acid on Pd(110), 1249
Infrared spectroscopic study of the interaction of cations in zeolites with simple molecular probes. Part 3.—Adsorption and polarization of methane and ethane on cationic forms of high-silica zeolites, 1393
Structural effect on molecular simulations of tight-pore systems, 1683
Adsorption of $[Cr(CN)_5NO]^{3-}$ on TiO_2 from solution studied by electron paramagnetic resonance spectroscopy, 1809
Liquid-phase adsorption of monosaccharide–water mixtures on X and Y zeolites, 1871
Experimental determination of the atomic quadrupole moment of graphite, 1909
Heat of adsorption of water on SrF_2: Relation to two-dimensional condensation of water adsorbed on SrF_2, 2041
Effect of vibrational interaction on the rate of dissociation of adsorbed molecules: Ethene on a nickel surface, 2049
Adsorption of ethane and propane in silicalite-1 and zeolite NaY: Determination of single components, mixture and partial adsorption data using an isosteric system, 3169
Molecular dynamics simulation of competitive adsorption of spherical particles of different sizes, 3453
Adsorption of trace gases (propane, butane and Freon-12) from carrier gases (helium, nitrogen and carbon dioxide) on activated carbon, 3491
Computer simulation of the adsorption of a fluid mixture in zeolite Y, 3619
Adsorption of CO_2 on non-stoichiometric strontium–calcium hydroxyapatites, 3821
Experimental and computer modelling studies of carbon-supported metal complexes. Part 2.—Molecular mechanics study of the adsorption of tetraaza[14]annulenes and their nickel(II) complexes by a carbon surface, 3963
Diffuse reflectance Fourier-transform infrared studies of hydrogen adsorbed on sodium zeolites, 3995
Resonant second harmonic generation study of Rhodamine B adsorbed onto fused silica. Models of the surface optics for calculation of the molecular orientation of adsorbate, 4017
1-pK multisites description of charge development at the aqueous alumina interface. Adsorption of Pd^{II}–amine complexes, 4091
Mechanism of deposition of Co^{2+} and Ni^{2+} ions on the interface between pure and F^--doped γ-alumina and the impregnating solution, 4101
Ultraviolet–visible spectroscopic investigations on the interaction of neopentane with acidic zeolites, 4221
Infrared reflection absorption spectroscopy, X-ray photoelectron spectroscopy and temperature-programmed desorption study on the adsorption and decomposition of $Fe(CO)_5$ over silver surfaces, 4387
Adsorption–desorption isotherm
New molecular probe technique for the assessment of ultramicroporous structure, 2059
Adsorption kinetics
Modelling of the kinetics of a gas–solid reaction involving a surface transient, 3629
Aggregation
Aggregation of amphiphilic compounds in dimethyl sulfoxide: Example of non-ionic alkyl–fluoroalkyl lipopeptides, 927
Chromatographic study on stepwise aggregation patterns of zwitterionic derivatives of cholic acid, 4355
Alcohol
Thermal desorption of *n*-alcohols intercalated in vanadium pentaoxide hydrate, 3827
Algebraic structure count
Easy method for the calculation of the algebraic structure count of phenylenes, 2413
Aliphatic ester
Rates of reaction between the nitrate radical and some aliphatic esters, 425
Alkali-metal bromide
Ionic association of alkali-metal bromides in 2-methoxyethanol, 733
Alkali-metal perchlorate
Attenuated total reflection Fourier-transform infrared spectroscopic study of ion–solvent and ion–ion interactions in alkali-metal perchlorate–acetonitrile solutions, 811
Alkane
Van der Waals liquids, Flory theory and mixing

functions for chlorobenzene with linear and branched alkanes, 89
Alkane/urea inclusion compound
Theoretical prediction of the guest periodicity of alkane/urea inclusion compounds, 2023
Alkanol
Excess heat capacities of mixtures of two alcohols, 81
Alkylammonium chloride
Ionic dynamics in the rotator phase of *n*-alkylammonium chlorides (C_6–C_{10}), studied by ^1H nuclear magnetic resonance, electrical conductivity and thermal measurements, 827
Alkylation catalyst
Surface properties and porosities of silica and acid-treated montmorillonite catalyst supports: Influence on activities of supported $ZnCl_2$ alkylation catalysts, 1387
Alkyl bromide
Pulse radiolysis study on radical cations of alkyl bromides in aqueous solutions, 477
Alkylidyne tricobalt nonacarbonyl
Inner-shell spectroscopies of solid and gaseous alkylidyne tricobalt nonacarbonyl complexes, 3331
Alkylpyridinium bromide
Thermodynamics of micelle formation of some alkylpyridinium bromides, 2445
Alkyne polymerization
Acetylene, methylacetylene and ethylacetylene polymerization on H-ZSM5: A spectroscopic study, 1843
Allyl peroxy radical
Kinetics and product study of the self-reactions of allyl and allyl peroxy radicals at 296 K, 433
Allyl radical
Kinetics and product study of the self-reactions of allyl and allyl peroxy radicals at 296 K, 433
Alon C
Structure of the surface sites of δ-Al_2O_3 as determined by high-resolution transmission electron microscopy, computer modelling and infrared spectroscopy of adsorbed CO, 3483
Alumina
X-Ray diffraction, high-resolution transmission electron microscopy and Fourier-transform infrared study of Ca-doped Al_2O_3, 135
Corrigendum to Interaction pathway of chloride ions with γ-Al_2O_3: Surface acidity and thermal stability of the Cl/γ-Al_2O_3 system, 601
Structure of the surface sites of δ-Al_2O_3 as determined by high-resolution transmission electron microscopy, computer modelling and infrared spectroscopy of adsorbed CO, 3483
Surface models for γ = Al_2O_3 from molecular dynamics simulations, 3623
Structural and catalytic properties of several potassium-doped nickel/α-alumina solids, 3981
1-p*K* multisites description of charge development at the aqueous alumina interface. Adsorption of Pd^{II}–amine complexes, 4091
Mechanism of deposition of Co^{2+} and Ni^{2+} ions on the interface between pure and F^--doped γ-alumina and the impregnating solution, 4101
Aluminium
Thermodynamic and kinetic factors in chloride ion pitting and nitrogen donor ligand inhibition of aluminium metal corrosion in aggressive acid media, 795
Aluminium carbonyl
Infrared spectra of aluminium carbonyl complexes in solid argon, 1291
Aluminium chloride
Dynamics of room-temperature melts: Nuclear magnetic resonance measurements of dialkylimidazolium haloaluminates, 3591
Aluminium nitride
Fourier-transform infrared characterization of an aluminium nitride surface, 3111
Aluminophosphate
Further studies on aluminophosphate molecular sieves. Part 1.—$AlPO_4$-H2: A hydrated aluminophosphate molecular sieve, 951
Further studies on aluminophosphate molecular sieves. Part 2.—VPI-5 related aluminophosphate materials, 957
Synthesis, characterization, thermal stability, acidity and catalytic properties of large-pore MAPO-46, 4141
Aluminosilicate
In-framework ion dipole polarizabilities in non-porous and porous silicates and aluminosilicates, determined from Auger electron spectroscopy data, 2499
Amination
Factors controlling the amination of 2-methylpropene over proton-exchanged zeolite catalysts, 3513
Amine elimination kinetics
Effect of *N*-alkylation on the rate of β-amine elimination from transients with Cu^{II}–carbon σ bonds, 4045
Aminophenoxyl radical
Structure, bonding and vibrational modes of the *p*-aminophenoxyl radical and *p*-benzosemiquinone radical anion from *ab initio* molecular orbital calculations, 665
Structure of the *p*-aminophenoxyl radical, 4177
Ammonia chemisorption
Reaction of NH_3 with trichlorosilylated silica gel: A study of the reaction mechanism as a function of temperature, 2509
Amperometric enzyme electrode
Amperometric enzymes electrode biofouling and passivation in blood: Characterisation of working electrode polarisation and inner membrane effects, 2847
Amphiphilic micelle
Relative stability of micellar forms, 1749
Angle-dependent line-of-centres model
Orientational dependence of the $N(^4S) + NO(X\,^2\Pi)$ and $N(^4S) + O_2(X\,^3\Sigma_g^-)$ reactions: Comparison of the angle-dependent line-of-centres model with quasiclassical trajectories, 3223
Anionic coordination
Anionic coordination involvement in solid-state ion-exchanged CuH-SAPO-*n* (*n* = 5, 11 and 34) molecular sieves, 4137
Anion movement
Anion movement and carrier type in polypyrrole/dodecyl sulfate, 303
Anodic oxidation
Study of the anodic oxidation of stainless steel alloys, and their constituent elements, in acidic electrolytes, 547
Anthraquinone
Dynamics of the fluorescence quenching of 1,4-dihydroxy-, 1-amino-4-hydroxy- and 1,4-diamino-9,10-anthraquinones by aromatic hydrocarbons, 683
Antiflocculant
Use of inert metal oxide antiflocculants to improve the rate of heterogeneous catalysis of redox reactions, 3849
Apatite
Exchange characteristics of carbonate-containing apatite for Al^{3+}, La^{3+} and Y^{3+} ions, 2095
Aprotic solvent
Nature of interactions between phosphines and HO acids in aprotic solvents: Nuclear magnetic resonance low-temperature studies, 2463
Aqueous electrolyte
Electrokinetic potential of the alkane/aqueous electrolyte interface, 527
Aqueous film
Aqueous film drainage at the quartz/water/air interface, 817
Aqueous mixture
Effect of solvent on the kinetics of oxidation of *trans*-$[CoNH_3(en)_2NCS]^{2+}$ by IO_4^-: A quantitative approach, 1745
Aqueous solution
Single-ion activities based on the electrical double-layer model: An indirect test of the Gouy–Chapman theory, 187
Temperature dependence of the rate constant for the reaction H + OH in liquid water up to 200 °C, 485
Role of hydrophilic interactions in sustaining preferential orientations: Calorimetric and nuclear magnetic resonance studies of ternary aqueous systems containing a destructuring agent and hydroxylated compounds at 298.15 K, 503
Role of functional-group position in determining the interaction between structure-maker and structure-breaker solutes. A microcalorimetric study of the interactions in aqueous solutions between positional isomers of alkan-*m*-ols and urea or biuret, 3061
Ionic partition equilibrium in a charged membrane immersed in a mixed ionic solution, 3433
Nuclear spin relaxation of ^7Li in aqueous solutions of LiCl, 4249
L-Ascorbic acid
Alkali-metal ion catalysis in the oxidation of L-ascorbic acid by hexacyanoferrate(III) in strongly acidic media, 3571
Association
Thermodynamics of association of cholesterol in an aprotic solvent, 3065
Astrophysical chemistry
Ab initio study of C_2O, C_2O^+ and C_2HO^+ species, 3325
Atmospheric chemistry
A kinetic investigation of the reaction Ca + O_3 over the temperature range 213–383 K, 763
Correlations between rate parameters and calculated molecular properties in the reactions of the nitrate radical with alkenes, 3899
Investigation into the pressure dependence between 1 and 10 Torr of the reactions of NO_2 with CH_3 and CH_3O, 4163
Atomic collision
Comparison equation approach to the locking of electronic angular momentum to the molecular axis in atomic collisions, 1567
Atomic quadrupole moment
Experimental determination of the atomic quadrupole moment of graphite, 1909
Atomistic simulation
Ionic halides and oxides at high pressure: Calculated Hugoniots, isotherms and thermal pressures, 4369
Auger electron spectroscopy
Doubly ionized states of hexafluorobenzene studied by high-resolution Auger electron and double-charge-transfer spectroscopies, 1637
In-framework ion dipole polarizabilities in non-porous and porous silicates and aluminosilicates, determined from Auger electron spectroscopy data, 2499
Auger electron, electron energy loss, secondary electron emission and secondary ion mass spectroscopic studies on the oxidation of hafnium at room temperature, 3611
Auramine O
Photochemistry on surfaces: Solvent–matrix effect on the swelling of cellulose. An emission and absorption study of adsorbed auramine O, 1937
Autocatalytic decomposition
Adsorption and autocatalytic decomposition of acetic acid on Pd(110), 1249
Azobenzene
Theoretical investigation of the structure and spectra of donor–acceptor azobenzenes, 1671
Azoethane
Reaction of methyl radicals with azoethane, 447
Basicity
Steric and inductive effects on the basicity of porphyrins and on the site of protonation of porphyrin dianions: Radiolytic reduction of porphyrins and metalloporphyrins to chlorins or phlorins, 495
γB-crystallin
Structure of bovine γB-crystallin at 150 K, 2677
BeHF
New *ab initio* three-dimensional potential of $BeHF(^1A')$, 2969
Bending vibrational level
Rate constants for the de-excitation of the bending vibrational levels of NCO ($\tilde{X}$) by helium, neon, argon, krypton and xenon, 405
Benzene complex
Structures and binding energies of benzene–methane and benzene–benzene

complexes. An *ab initio* SCF/MP2 study, 659
Benzene–hexafluorobenzene complex
Solid-state ^{13}C and ^{2}H nuclear magnetic resonance studies of the benzene–hexafluorobenzene complex, 823
Benzenoid system
Graph generation: Quasicrystal-like benzenoid systems, 909
Benzonitrile
Ultrasonic velocity, permittivity, density, viscosity and proton nuclear magnetic resonance measurements of binary mixtures of benzonitrile with organic solvents, 1737
Benzophenone derivative
Acid–base properties of disodium 3,3′-disulfonatobenzophenone (DSB) in the ground and excited states, 699
Beta-zeolite
Characterization by infrared and nuclear magnetic resonance spectroscopies of calcined beta zeolite, 3659
Bilayer
Photoexcitation energy transfer of binary and ternary systems mediated by a bilayer membrane containing biphenyl moiety, 1365
Rectifying behaviour of n-titanium dioxide–polybithiophene semiconductor–polymer bilayers: An electrochemical quartz crystal microbalance investigation, 3941
Bimetallic cluster
Polymer-protected palladium–platinum bimetallic clusters: Preparation, catalytic properties and structural considerations, 2537
Binary system
Ethane-1,2-diol–water solvent system: Relative permittivity as a function of temperature and binary composition, 123
Thermodynamic study of complex formation by hydrogen bonding in halogenoalkane–oxygenated solvent mixtures: Halothane with acetone, methyl acetate, tetrahydrofuran and methyl *tert*-butyl ether, 1025
Ion pairing and microscopic structure of R_4NPF_6 in the binary system CD_3CN–CCl_4 studied by nuclear magnetic resonance spectroscopy, 1339
Excess molar enthalpies of methanol–*n*-pentane and methanol–*n*-hexane from 454.4 to 522.7 K and up to 6 MPa, 1345
Conductances of sodium tetraphenylborate in methoxyethanol–water binary solvent mixtures, 1357
Ultrasonic velocity, permittivity, density, viscosity and proton nuclear magnetic resonance measurements of binary mixtures of benzonitrile with organic solvents, 1737
Liquid-phase adsorption of monosaccharide–water mixtures on X and Y zeolites, 1871
Mutual diffusion coefficients for the systems water–ethanol and water–propan-1-ol at 25 °C, 1969
Thermodynamic behaviour of mixtures. Part 1.—Mixtures of pyridine with β-picoline, γ-picoline, isoquinoline, benzene and cyclohexane at 25 °C, 2001
Intramolecular charge-transfer fluorescence of 4-(4-cyano-1-naphthylmethylene)-1-phenylpiperidine in cyclohexane–methyl acetate binary mixtures and related aliphatic esters. Polarity *vs.* mobility control of the relaxation of a highly dipolar excited state, 2403
Thermodynamic behaviour of binary systems of quinoline with methylene chloride, chloroform, carbon tetrachloride benzene and cyclohexane. Vapour pressures and excess molar Gibbs energies, 2429
Quadrupole interactions in pure non-dipolar fluorinated or methylated benzenes and their binary mixtures, 2441
Conductivity of tetraphenylphosphonium bromide in 2-methoxyethanol–water, 3043
Thermodynamic behaviour of mixtures. Part 2.—Mixtures of acetonitrile with β-picoline, γ-picoline, 2,6-lutidine, isoquinoline and benzene at 25 °C, 3049
Adsorption of ethane and propane in silicalite-1 and zeolite NaY: Determination of single components, mixture and partial adsorption data using an isosteric system, 3169
Reactions of recoil bromine species produced by neutron capture in 1,4-dibromobenzene–benzene mixtures, 3257
Excess molar enthalpies of methanol–cyclohexane and methanol–benzene from 454.2 to 523.0 K and up to 4 MPa, 3375
Relative viscosities and quasi-thermodynamics of solutions of *tert*-butyl alcohol in the methanol–water system: A different view of the alkyl–water interaction, 3381
Uses and limitations of rigid lattice models for rationalising excess thermodynamic functions of binary liquid mixtures at low pressures, 3767
Nuclear magnetic resonance relaxation, permittivity, viscosity and ultrasonic velocity measurements in binary mixtures of methanol and tetrahydrofuran, 3955
Micelle formation by anionic and cationic surfactants in binary aqueous solvents, 4323
Binding energy
Structures and binding energies of benzene–methane and benzene–benzene complexes. An *ab initio* SCF/MP2 study, 659
Binding isotherm
Equilibrium and kinetic studies associated with the interaction between sodium dodecyl sulfate and polyvinylpyrrolidone in aqueous solution, 2737
Biomineralization
Influence of low-molecular-weight and macromolecular organic additives on the morphology of calcium carbonate, 2891
Biomolecular modelling
A comparison of three theoretical approaches to the study of side-chain interactions in proteins, 2619
Biophysical chemistry
Preparation of unstable quinones in aqueous solution *via* pulse radiolytic one-electron oxidation of dihydroxybenzenes, 803
Forces between biological surfaces, 2567
Nuclear magnetic resonance spectroscopy of frozen phosphatidylcholine–D_2O suspensions: A new technique for measuring hydration forces, 2583
Scanning probe microscopy of collagen I and pN-collagen I assemblies and the relevance to scanning tunnelling microscopy contrast generation in proteins, 2589
Scanning tunnelling microscopy of *Aspergillus niger* glucoamylases, 2595
Boolean programming formulation of some pattern-matching problems in molecular biology, 2603
Lost hydrogen bonds and buried surface area: Rationalising stability in globular proteins, 2609
A comparison of three theoretical approaches to the study of side-chain interactions in proteins, 2619
Rotation about the C—N bond in formamide: An *ab initio* molecular orbital study of structure and energetics in the gas phase and in solution, 2631
Conformation and flexibility of oligonucleotides containing O^6-methylguanine: A molecular dynamics study, 2637
Factors involved in guanine/cytosine (G/C) selectivity of DNA-binding drugs: A molecular modelling study of ligand interactions with a *tyr*T DNA sequence, 2651
Biophysical study of halophilic malate dehydrogenase in solution: Revised subunit structure and solvent interactions of native and recombinant enzyme, 2659
High-resolution crystallographic studies of native concanavalin A using rapid Laue data collection methods and the introduction of a monochromatic large-angle oscillation technique (LOT), 2667
Structure of bovine γB-crystallin at 150 K, 2677
Caseins as rheomorphic proteins: Interpretation of primary and secondary structures of the α_{s1}-, β- and κ-caseins, 2683
Microcalorimetry of enzyme–substrate binding: Yeast phosphoglycerate kinase, 2693
Interaction of the tetramethylammonium ion with the lysozyme molecule, studied using neutron diffraction, 2701
Electrostatic interaction energies in lactate dehydrogenase catalysis, 2707
Muscle thin-filament structure and regulation. Actin sub-domain movements and the tropomyosin shift modelled from low-angle X-ray diffraction, 2717
From neutral to ionic species: Amine-*p*-*tert*-butyl calix(*n*)arene (n = 6,8) interaction. Electrochemical, thermodynamic and structural studies in benzonitrile, 2727
Equilibrium and kinetic studies associated with the interaction between sodium dodecyl sulfate and polyvinylpyrrolidone in aqueous solution, 2737
Infrared evidence for the α-helical-type structure of very simple *N*-octanoyl-L-glutamic acid oligomers (residue number, N = 1–4) and for the α-CO_2^- group effect on their α → β-like transition, 2743
Competitive effects in the adsorbed layer of oil-in-water emulsions stabilised by β-lactoglobulin–Tween 20 mixtures, 2755
Partial molar heat capacities and volumes of aqueous solutions of some peptides that model side-chains of proteins, 2761
Effect of osmoregulatory solutes on the stability of proteins, 2769
Diffusion in buffered protein solutions: Combined Nernst–Planck and multicomponent Fick equations, 2775
Can membrane transport parameters that vary with time be derived from electrochemical measurements in an external electrolyte?, 2783
Orientation of large DNA during free solution electrophoresis studied by linear dichroism, 2791
Effect of lipid charge and solution composition on the permeability of phospholid–gramicidin monolayers to Tl^+, 2799
^{7}Li and ^{23}Na Nuclear magnetic resonance studies of transport and diffusion in liposomes. Comparison of transport rate constants estimated using pulsed field gradient and magnetization-transfer procedures, 2807
Global target analysis of fluorescence depolarization in model membranes using exponential splines, 2815
Phase behaviour of monoglyceride/water systems, 2823
Modelling propagation and re-entry in anisotropic and smoothly heterogeneous cardiac tissue, 2833
Electrical properties of human *stratum corneum* and transdermal drug transport, 2839
Amperometric enzymes electrode biofouling and passivation in blood: Characterisation of working electrode polarisation and inner membrane effects, 2847
Light-induced triplet electron transfer in cyclohexane-bridged porphyrin–quinones detected by time-resolved electron paramagnetic resonance spectroscopy, 2853
Nature of the S_2 state electron paramagnetic resonance signals from the oxygen-evolving complex of photosystem I: Q-band and oriented X-band studies, 2863
Electron spin–echo spectroscopy of the [Fe]-hydrogenase from *Desulfovibrio desulfuricans*, strain ATCC 7757, 2869
Time-resolved resonance Raman spectroscopy of α-tocopheroxyl and related radicals in solvent, micellar and membrane systems, 2873
Time-dependent polydispersity of growing colloidal aggregates: Predictions from dynamic light scattering theory, 2879
Influence of low-molecular-weight and macromolecular organic additives on the morphology of calcium carbonate, 2891
X-Ray photoelectron spectroscopy study on chemical states of fluoride in bovine dentine treated with NaF, 2901
Scanning microradiographic and

microtomographic studies of remineralisation of subsurface enamel lesions, 2907
Physico-chemical model of microbial adhesion, 2913
Pre-irradiation with low doses has no detectable effect on the repair of radiation-induced double strand breaks in DNA of chinese hamster V79 cells, 2923
What base pairings can occur in DNA? A distributed multipole study of the electrostatic interactions between normal and alkylated nucleic acid bases, 3407
Biopolymer
Proton nuclear magnetic resonance lineshapes and transverse relaxation in a hydrated barley protein, 4203
Bipyridyliums
Comproportionation in propylene carbonate of substituted bipyridyliums. Rates and equilibria by rotating ring–disc electrode and associated electrochemical studies, 219
1,8-Bis(dimethylamino)naphthalene hydrogen maleate
X-Ray, Fourier-transform infrared, ^1H and ^{13}C nuclear magnetic resonance, and PM3 studies of $(N-H\cdots N)^+$ and $(O-H\cdots O)^-$ intramolecular hydrogen bonds in a complex of 1,8-bis(dimethylamino)naphthalene with maleic acid, 2085
Bismuth(III)
Photocatalytic deposition of bismuth(III) ions onto TiO_2 powder, 129
Bismuth-modified platinum
Electrooxidation of ethylene glycol on bismuth-modified Pt(111), 223
Bleaching
Mechanism of bleaching by peroxides. Part 1.—Kinetics of bleaching of phenolphthalein by hydrogen peroxide, 1203
Mechanism of bleaching by peroxides. Part 2.—Kinetics of bleaching of alizarin and crocetin by hydrogen peroxide at high pH, 4035
Block copolymer
^1H Nuclear magnetic relaxation study of the phase structure of polystyrene-*block*-poly(ethylene/propylene) copolymer micelles, 3471
Blood
Amperometric enzymes electrode biofouling and passivation in blood: Characterisation of working electrode polarisation and inner membrane effects, 2847
Bone fracture
Electron paramagnetic resonance spectroscopic studies of organic radicals formed in bone during fracture, 1285
Boolean programming
Boolean programming formulation of some pattern-matching problems in molecular biology, 2603
Boralite
Strength of Brønsted acid sites in boralites, 1829
Borate ion
Expulsion of borate ions from the silver/solution interfacial region during underpotential deposition discharge of Bi^{III} in borate buffer, 251
Brønsted acid
Strength of Brønsted acid sites in boralites, 1829
Influence of small amounts of tungsten on the physico-chemical and catalytic properties of $PMO_{11-x}W_xVO_{40}^{4-}$ heteropolyanions, 3301
Brownian dynamics
Dynamic simulation of the adsorption of a flexible chain, 573
C_{60}
Toroidal polyhexes, 1945
Observations of molecules in diffuse interstellar clouds, 2261
Enthalpies of formation of buckminsterfullerene (C_{60}) and of the parent ions C_{60}^+, C_{60}^{2+}, C_{60}^{3+} and C_{60}^-, 3541
Cadmium
Effect of the size of the chelate ring on the stability of cyclic exciplexes between the cadmium($5\,^3P_1$) atom and diamines, 703
Cadmium sulfide
Size-quantised cadmium sulfide particles in Langmuir–Blodgett films: Film thermal stability, 2031
Caesium hydrogen difluoride
^1H and ^{19}F nuclear magnetic relaxation study of the dynamics of the hydrogen difluoride ion, FHF^-, in the α- and β-phases of caesium hydrogen difluoride, 693
Calcination
Effect of calcination on titanium phosphate produced by H_3PO_4 treatment of anatase, 2515
Calcium carbonate
Calcite and aragonite formation from aqueous calcium hydrogencarbonate solutions: Effect of induced electromagnetic field on the activity of $CaCO_3$ nuclei precursors, 2457
Influence of low-molecular-weight and macromolecular organic additives on the morphology of calcium carbonate, 2891
Calcium chloride hydrate
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 1.—Electrical conductivity of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 powder, 3805
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 2.—Melting behaviour and thermodynamic properties of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 or α-SiC powder, 3811
Calcium phosphate glass
^{31}P Magic-angle spinning nuclear magnetic resonance spectroscopy of calcium phosphate glasses, 3297
Calixarene
From neutral to ionic species: Amine-*p*-*tert*-butyl calix(n)arene (n = 6,8) interaction. Electrochemical, thermodynamic and structural studies in benzonitrile, 2727
Calorimetry
Role of hydrophilic interactions in sustaining preferential orientations: Calorimetric and nuclear magnetic resonance studies of ternary aqueous systems containing a destructuring agent and hydroxylated compounds at 298.15 K, 503
Capacitance
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 1.—Basis for distinction between capacitance of the double layer and the pseudocapacitance due to adsorbed H in the H_2 evolution reaction at Pt, 235
Captodative effect
Radicals containing both a phosphoranylidene and a ketone group: An electron paramagnetic resonance/electron nuclear double resonance study of their structure and *ab initio* investigations on the captodative effects, 2391
Carbamic acid
Structure and acidity of carbamic acid, and its thio, dithio and sila derivatives, 2375
Carbene
Free carbenes in the interstellar gas, 2125
Carbon
On the flexibility of the carbon skeleton, 935
Interaction of aqueous solutions of ammonia with carbons, 939
Primary and secondary filling of micropores in active carbons, 2055
New molecular probe technique for the assessment of ultramicroporous structure, 2059
Adsorption of trace gases (propane, butane and Freon-12) from carrier gases (helium, nitrogen and carbon dioxide) on activated carbon, 3491
Carbon cluster
Growth of carbon clusters. The Simplest Process $2C_1 \rightarrow C_2$ observed *via* spectrometry and chemical reaction, 1001
Energetics for carbon clusters produced directly by laser vaporization of graphite: Dependence on laser power and wavelength, 1667
Laboratory study of carbon particles and clusters, 2285
Carbon dioxide
Temperature-jump and trajectory studies of the quenching of $CO_2(010)$ by atomic oxygen, 1183
Carbon electrode
Spatial distributions and saturation number densities of lead nuclei deposited on vitreous carbon electrodes, 255
Carbon fibre
On the flexibility of the carbon skeleton, 935
Carbon monoxide
Fourier-transform infrared study on the encapsulation of carbon monoxide in cation-exchanged X-zeolites, 1143
Electron paramagnetic resonance investigation of the interaction of CO with the surface of electron-rich magnesium oxide: Evidence for the CO^- radical anion, 3715
Carbon oxides
Ab initio study of C_nO, C_nO^+ and C_nHO^+ species, 3325
Carbonyl stretching vibration
Solvent sensitivity of the wavenumber characterising the carbonyl stretching vibration of *N*-cyclohexyl-2-pyrrolidinone dissolved in pure liquids and in mixtures formed by hexane and deuteriotrichloromethane at 298.2 K, 4199
Carboxylic acid
Far-infrared study of heteroconjugated and homoconjugated hydrogen bonds between trimethylamine *N*-oxide and various carboxylic acids as a function of the pK_a of the acid, 1733
Cardiac muscle
Modelling propagation and re-entry in anisotropic and smoothly heterogeneous cardiac tissue, 2833
Carotenoid
Time-resolved resonance Raman spectroscopy of carotenoids in Triton X-100 micellar solution, 1753
Casein
Caseins as rheomorphic proteins: Interpretation of primary and secondary structures of the α_{s1}-, β- and κ-caseins, 2683
Influence of electrostatic interactions on β-casein layers adsorbed on polystyrene latices, 3419
Catalyst characterisation
Characterisation of carbon-supported Pt–Sn bimetallic catalysts for the electrochemical oxidation of methanol, 151
Problems involved in the reducibility of the NiO–MgO system as evidenced by X-ray diffraction, electron paramagnetic resonance, electron spectroscopy for chemical analysis and adsorption techniques, 943
Catalytic studies with dealuminated Y zeolite. Part 1.—Catalyst characterisation and the disproportionation of ethylbenzene, 2551
Characterisation of Cr/silica catalysts. Part 2.—Ti- and Mg-modified catalysts, 4393
Catalyst pore structure
Are the pore and surface morphologies of real catalysts fractal?, 4109
Catalyst preparation
Influence of the reduction temperature on the properties of silica-supported nickel catalysts, 3313
Catalyst promoter
Conversion of thiophene on molybdena–alumina catalysts containing Group 8–10 metals: Effect of H_2S uptake, 3137
Characterisation of Cr/silica catalysts. Part 2.—Ti- and Mg-modified catalysts, 4393
Catalyst properties
Structural and catalytic properties of several potassium-doped nickel/α-alumina solids, 3981
Catalytic hydrolysis
Enzymatic reaction in water-in-oil microemulsions. Part 1.—Rate of hydrolysis of a hydrophilic substrate: acetylsalicylic acid, 1993
Catecholborane
Planarity and low-energy vibrations of catecholborane: A microwave spectroscopic study, 1631
Cation
Interactions between cations and sugars. Part 7.—Gibbs energies, enthalpies and entropies of association of the trivalent lanthanide cations with ribose in water at 298.15 K, 1223
Cation exchange

Cation-exchange properties of iron(III) phosphate, 3843

Cell adhesion
Forces between biological surfaces, 2567

Cellulose
Photochemistry on surfaces: Solvent–matrix effect on the swelling of cellulose. An emission and absorption study of adsorbed auramine O, 1937
Behaviour of films of regenerated cellulose in strongly alkaline environments. Estimation of non-homogeneity from ionic conductance, 3427

Cement hydration
Simple chemical clock reactions: Application to cement hydration, 3021

Ceria
Hydrogen chemisorption on ceria: Influence of the oxide surface area and degree of reduction, 3499

$CH_4\cdots HCl$ complex
Quantum-chemical study of the $CH_4\cdots HCl$ complex, 2363

Channel-flow cell
Dolomite dissolution kinetics at low pH: A channel-flow study, 3947

Charge transfer
Charge-transfer complexes of discogenic molecules: A time-resolved study based on Kerr ellipsometry, 37
Iron–diimine–cyanide complexes as probes for aqueous micellar systems, 531
Dynamics of the fluorescence quenching of 1,4-dihydroxy-, 1-amino-4-hydroxy- and 1,4-diamino-9,10-anthraquinones by aromatic hydrocarbons, 683
Solvent effect on the charge-transfer transition of a novel amphiphilic pentacyano(4-octadecylaminopyridine)ferrate(III) complex, 1021
Alignment and orientation in $Li(2p_m)—H^+$ charge-transfer collisions, 1573
Intramolecular charge-transfer fluorescence of 4-(4-cyano-1-naphthylmethylene)-1-phenylpiperidine in cyclohexane–methyl acetate binary mixtures and related aliphatic esters. Polarity *vs.* mobility control of the relaxation of a highly dipolar excited state, 2403

Chelate ring size
Effect of the size of the chelate ring on the stability of cyclic exciplexes between the cadmium($5\,^3P_1$) atom and diamines, 703

Chemical clock reaction
Simple chemical clock reactions: Application to cement hydration, 3021

Chemical reaction dynamics
Orientational dependence of the $N(^4S) + NO(X\,^2\Pi)$ and $N(^4S) + O_2(X\,^3\Sigma_g^-)$ reactions: Comparison of the angle-dependent line-of-centres model with quasiclassical trajectories, 3223

Chemical relaxation
Thermodynamics of coupled reactions by the analysis of chemical relaxation signals: The nickel(II)–murexide system, 719

Chemical shift
^{129}Xe Nuclear magnetic resonance study of faujasite zeolites of varying aluminium content, 3841

Chemiluminescence
Kinetic investigation of the time-resolved atomic fluorescence $Sr(5\,^3P_1 \rightarrow 5\,^1S_0)$ and molecular chemiluminescence $SrCl(A\,^2\Pi, B\,^2\Sigma^+ \rightarrow X\,^2\Sigma^+)$ following the pulsed dye-laser generation of $Sr(5\,^3P_J)$ in the presence of CH_3Cl and CF_3Cl, 1645

Chemisorption
Chemisorption of thiol compounds onto gold surfaces studied by static secondary ion mass spectrometry and relevance of data to ion formation mechanisms during sputtering, 179
Fourier-transform infrared photoacoustic studies of hydrogenated diamond surfaces, 749
Adsorption of hydrogen on highly dispersed MgO, 1101
Thermal hydrogenation of diamond surfaces studied by diffuse reflectance Fourier-transform infrared, temperature-programmed desorption and laser Raman spectroscopy, 1783
Hydrogen chemisorption on ceria: Influence of the oxide surface area and degree of reduction, 3499

Chinese hamster V79 cells
Pre-irradiation with low doses has no detectable effect on the repair of radiation-induced double strand breaks in DNA of chinese hamster V79 cells, 2923

Chloride ion pitting
Thermodynamic and kinetic factors in chloride ion pitting and nitrogen donor ligand inhibition of aluminium metal corrosion in aggressive acid media, 795

Chlorin
On the diffuse interstellar bands, 2269

Chlorocobalt(III) complex
Kinetics of the solvolysis of a cationic and of an anionic chlorocobalt(III) complex in water–glucose mixtures: Anomalous effects on the enthalpy and entropy of activation, 3565

Chlorodifluoromethane
Infrared fluorescence from CO_2 laser-pumped CF_2HCl: Collision dynamics of intermode energy flow, 639
Infrared laser-induced chemistry of chlorodifluoromethane–silane mixtures at two irradiating wavelengths, 3907

Chlorofluorohydrocarbon
Gas viscosities and intermolecular interactions of replacement refrigerants HCFC 123 (2,2-dichloro-1,1,1-trifluoroethane); HCFC 124 (2-chloro-1,1,1,2-tetrafluoroethane and HFC 134a (1,1,1,2-tetrafluoroethane), 3545

[^{35}Cl]Chloromethane
Molecular beam infrared–radiofrequency double-resonance spectroscopy of [^{35}Cl]chloromethane: Hyperfine structure of the v_6 vibrational state, 3857

Chlorophyll-*a*
Fluorescence quenching of chlorophyll-*a* in non-ionic micelles. Effect of micellar and quencher concentrations on the static and dynamic quenching parameters, 1925

Chlorosilane
Reaction of NH_3 with trichlorosilylated silica gel: A study of the reaction mechanism as a function of temperature, 2509

Chlorosulfonylisocyanate
Structure and conformation of chlorosulfonylisocyanate and cyclopropylisocyanate, 2381

Cholesterol
Hydrogen bonds between cholesterol and oxygen bases: A thermodynamic study, 2433
Thermodynamics of association of cholesterol in an aprotic solvent, 3065

Cholic acid
Chromatographic study on stepwise aggregation patterns of zwitterionic derivatives of cholic acid, 4355

Chromium(III) oxide
Oxidative dissolution of chromium(III) oxides by metaperiodate ions in perchloric acid, 3389

Chromone
Photosensitizers: comprehensive photophysics/photochemistry and theory of coumarins, chromones, their homologues and thione analogues, 1007

Chronoamperometry
Chronoamperometric mobilities in the electrodynamics of a non-aqueous sol: Depletion, turbulence and electron transfer in sol electrodeposition, 3091

Cinnamate derivative
Excited-state reactions of triphenylpyrylium ion with cinnamate derivatives: Triplet-mediated isomerization and singlet-mediated dimerization, 465

Circumstellar envelope
Millimetre observations and chemical processes in circumstellar envelopes and planetary nebulae, 2137

***cis*-3,4-Dichlorocyclobutene**
Model calculations of chemical interactions. Part 5.—Diastereofacial selectivity in 1,3-dipolar cycloaddition of formonitrile oxide to norbornene and *cis*-3,4-dichlorocyclobutene, 29

***cis–trans* isomerism**
Influence of cation, solvent and temperature on *Z–E* isomerisation of radical ion pairs derived from (*Z*)- and (*E*)-1,2-bis(2,4,6-trimethylbenzoyl)ethenes by chemical reduction with alkali metals and magnesium. A structural, electron paramagnet resonance, ENDOR and TRIPLE resonance study, 1327

Cluster
Locating stationary points for clusters in Cartesian coordinates, 1305
Frequency- and time-resolved cluster photodissociation dynamics in $Sr^+(H_2O)_n$, $Sr^+(NH_3)_n$ and $Sr^+(CH_3OH)_n$, 1457
Potential-energy functions for Cu, Ag and Au solids and their application to clusters of these elements, 1659
Formation and photolysis of tantalum sulfide cluster ions, 1779
Geometries and energies of small Ge_n (n = 2–6) clusters: An *ab initio* molecular orbital study, 2961

Coal
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 2.—Pulse and steady-state radiolysis of 1,2-di(pyren-1-yl)ethane in tetrahydrofuran, dimethoxyethane and toluene in the presence of sodium dihydridobis(2-methoxyethoxy) aluminate, 891
New developments of the coal model of interstellar dust, 2289
Electron spin-echo studies of British coals at S-band, 3733

Cobalt
Sterically controlled complexation of manganese(II) and cobalt(II) with chloride ions in *N*,*N*-dimethylacetamide, 3055

Cobalt(II)-doped glass
Ultraviolet–visible–near-infrared and EXAFS study of Co^{II} coordination chemistry in post-doped silica sol–gel glasses, 4115

Cobalt–nickel molybdate
Acid–base properties of metallic oxide catalysts studied by conversion of propan-2-ol, 3151

Coherence cross-section
Initial and final orbital alignment probing of the fine-structure-changing collisions among the Ca $(4s)^1(4p)^1$, ^3P_J states with He: Determination of coherence and conventional cross-sections, 1401

Coherent anti-Stokes Raman scattering
Phenol adsorption on ZnO (0001) probed by coherent anti-Stokes Raman scattering spectroscopy using guided waves, 1067

Collagen
Scanning probe microscopy of collagen I and pN-collagen I assemblies and the relevance to scanning tunnelling microscopy contrast generation in proteins, 2589

Collinear dynamics
Collinear quantum wave packet study of exothermic A + BC reactions involving an intermediate complex of linear geometry. Application to the C + NO reaction, 1579

Collision process
Absolute rate data for the reactions of ground-state atomic carbon, $C[2p^2(^3P_J)]$, with alkenes investigated by time-resolved atomic resonance absorption spectroscopy in the vacuum ultraviolet, 7
Infrared fluorescence from CO_2 laser-pumped CF_2HCl: Collision dynamics of intermode energy flow, 639
Rotational and vibrational energy transfer in $CH(A\,^2\Delta)$, 1287
Initial and final orbital alignment probing of the fine-structure-changing collisions among the Ca $(4s)^1(4p)^1$, ^3P_J states with He: Determination of coherence and conventional cross-sections, 1401
Magnetically selected beams of atomic chlorine: Measurement of long-range features of the chlorine–hydrogen and chlorine–methane potential-energy surfaces, 1467
Orientation dependence of the $F + H_2$ and $H + F_2$ reactions using the line-of-centres model with angle-dependent collision diameters and barrier heights, 1481
Collision energy and product polarization effects in the $Ca^*(^1D_2) + HCl \rightarrow CaCl^*(A, B) + H$ reaction, 1493
Collisional autoionization dynamics of $Ne^*–Cl_2$, 1505

How a collision complex forgets its origin; H_3^+, 1533
Kinetic investigation of the time-resolved atomic fluorescence Sr($5\,^3P_1 \rightarrow 5\,^1S_0$) and molecular chemiluminescence SrCl($A\,^2\Pi$, $B\,^2\Sigma^+ \rightarrow X\,^2\Sigma^+$) following the pulsed dye-laser generation of Sr($5\,^3P_J$) in the presence of CH_3Cl and CF_3Cl, 1645
Investigation of the collisional behaviour of electronically excited germanium atoms, Ge[$(4p)^2(^1D_2)$], by time-resolved atomic resonance absorption spectroscopy in the ultraviolet, 1653
Computation of inelastic rotational rates and collision cross-sections for astrophysically important systems: $H_2 + H_2O$ and the water maser, 2239
Monte Carlo calculation of rotational relaxation in small molecules, 3517

Colloid
Rheology evidence of adsorbate-mediated short-range steric forces in concentrated dispersions, 2473
Superadditive catalysis of homogeneous redox reactions with mixed silver–gold colloids, 2479
Time-dependent polydispersity of growing colloidal aggregates: Predictions from dynamic light scattering theory, 2879
Calculation of particle deposition rate under unfavourable particle–surface interactions, 3443

Competitive adsorption
Competitive effects in the adsorbed layer of oil-in-water emulsions stabilised by β-lactoglobulin–Tween 20 mixtures, 2755
Molecular dynamics simulation of competitive adsorption of spherical particles of different sizes, 3453

Complexation
Thermodynamic study of complex formation by hydrogen bonding in halogenoalkane–oxygenated solvent mixtures: Halothane with acetone, methyl acetate, tetrahydrofuran and methyl *tert*-butyl ether, 1025
Substituent effects and chiral discrimination in the complexation of benzoic, 4-methylbenzoic and (*RS*)-2-phenylpropanoic acids and their conjugate bases by β-cyclodextrin and 6^A-amino-6^A-deoxy-β-cyclodextrin in aqueous solution: potentiometric titration and ^1H nuclear magnetic resonance spectroscopic study, 1035
Sterically controlled complexation of manganese(II) and cobalt(II) with chloride ions in *N*,*N*-dimethylacetamide, 3055
Relation between the formation constant and the local structure of various bases and reference acids for the 1:1 hydrogen-bond complexation in aprotic solvents, 4279

Complex impedance
Electrical properties of human *stratum corneum* and transdermal drug transport, 2839

Comproportionation
Comproportionation in propylene carbonate of substituted bipyridyliums. Rates and equilibria by rotating ring–disc electrode and associated electrochemical studies, 219

Computer modelling
Experimental and computer modelling studies of carbon-supported metal complexes. Part 2.—Molecular mechanics study of the adsorption of tetraaza[14]annulenes and their nickel(II) complexes by a carbon surface, 3963

Computer simulation
Role of structural defects and oxygen ion migration in the catalytic activity of La_2O_3, 3833

Co/NbO_x catalyst
Effect of the support on the Fischer–Tropsch synthesis with Co/Nb_2O_5 catalysts, 3975

Condensation
Heat of adsorption of water on SrF_2: Relation to two-dimensional condensation of water adsorbed on SrF_2, 2041

Conductance
Ionic association of alkali-metal bromides in 2-methoxyethanol, 733
Conductances of sodium tetraphenylborate in methoxyethanol–water binary solvent mixtures, 1357
Conductance study of the binding of methyl orange, *o*-methyl red and *p*-methyl red anions by α-cyclodextrin in water, 1729
Structure and dynamics of microemulsions. Part 1.—Effect of additives on percolation of conductance and energetics of clustering in water–AOT–heptane microemulsions, 3277
Behaviour of films of regenerated cellulose in strongly alkaline environments. Estimation of non-homogeneity from ionic conductance, 3427

Conducting polymer
Morphology control in electrochemically grown conducting polymer films. Part 2.—Effects of cathodic bias on anodically grown films studied by spectroscopic ellipsometry and quartz-crystal microbalance, 287
Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 311
Coupling of ion and electron transport during impedance measurements on a conducting polymer with similar ionic and electronic conductivities, 321
Transmission line model for conducting polymer including cations and Donnan exclusion, 2487
Corrigendum to Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 3181

Conductivity
Percolation model of adsorption-induced response of the electrical characteristics of polycrystalline semiconductor adsorbents, 559
Conductivity of tetraphenylphosphonium bromide in 2-methoxyethanol–water, 3043
Characterisation of Boc-Lys(Z)-Tyr-$NHNH_2$ dipeptide. Part 1.—Physico-chemical studies on the micelle formation of a dipeptide in the absence and presence of ionic surfactants, 3075
Corrigendum to Conductometric identification of triple-ion and quadrupole formation by the coordination forces from lithium trifluoroacetate and lithium pentafluoropropionate in protophobic aprotic solvents, 3515

Conformation
Intramolecular hydrogen bond and molecular conformation. Part 1.—Effect of pressure and temperature on the infrared spectra of 4-hydroxy-4-methylpentan-2-one (diacetone alcohol) in dilute solutions, 489
Structure and conformation of chlorosulfonylisocyanate and cyclopropylisocyanate, 2381
Conformation and flexibility of oligonucleotides containing O^6-methylguanine: A molecular dynamics study, 2637
Raman spectroscopic study of the conformational behaviour of the polymorphic non-ionic surfactant α-hexadecyl-ω-hydroxytris(oxyethylene) ($C_{16}E_3$), 4079

Conformer
Conformers, vibrational spectra and laser-induced rotamerization of $CH_2ClCOOH$, 3235

Continuous-wave CO_2 laser-induced chain reaction
Continuous-wave CO_2 laser-induced chain reaction of 1,2-dichloroethane, 4171

Conversion catalyst
Reactivation mechanisms of palladium in methylcyclopentane conversion, 1799

Convolution kinetics
Extended mechanism of excimer formation, 15

Copoly(oxyethylene/oxybutylene)
Micellisation of diblock copoly(oxyethylene/oxybutylene) in aqueous solution, 1235
Gelation of diblock copoly(oxyethylene/oxybutylene) in aqueous solution, 1243

Copolymer
block-Copoly(oxyethylene/oxybutylene/oxyethylene), $E_{40}B_{15}E_{40}$, in aqueous solution: Micellisation, gelation and drug release, 539

Copper complex
Solvation of copper(I) and stability of its complex with cryptand 222 in dimethyl sulfoxide–acetonitrile mixtures, 2015
Electrochemical reduction of bis(β-diketones): 1,10-Di(α-cyclohexanone)decane-1,10-dione and 3,14-diacetylhexadecane-2,15-dione. Characterization and electron paramagnetic resonance properties of their electro-generated mononuclear copper(II) complexes, 4299

Copper dichloride
Observation and analysis of rotational and nuclear hyperfine structure in bands of the red system of copper dichloride, 3205

Core photoemission
Valence and core photoemission of the films formed electrochemically on aluminium in nitric acid, 263

Corrosion
Study of the anodic oxidation of stainless steel alloys, and their constituent elements, in acidic electrolytes, 547
Thermodynamic and kinetic factors in chloride ion pitting and nitrogen donor ligand inhibition of aluminium metal corrosion in aggressive acid media, 795

Coumarin
Photosensitizers: comprehensive photophysics/photochemistry and theory of coumarins, chromones, their homologues and thione analogues, 1007

Critical micellar concentration
Iron–diimine–cyanide complexes as probes for aqueous micellar systems, 531

Critical point
A method for introducing scaling behaviour into a classical equation of state, 69

Cross-linking
Determination of the structural configuration and the cross-linking reaction between 2-*p*-(formylstyryl)-3,4-dimethylthiazol-3-ium moieties in photosensitive polymers, 4327

Crown ether
Cyclic voltammetry of benzo-15-crown-5 ether-vinyl-bipyridyl ligands, their ruthenium(II) complexes and bismethoxyphenyl-vinyl-bipyridyl ruthenium(II) complexes. Electrochemical polymerization studies and supporting electrolyte effects, 333

Cr–silica catalyst
Characterisation of Cr–silica polymerisation catalysts, 843
Characterisation of Cr/silica catalysts. Part 2.—Ti- and Mg-modified catalysts, 4393

Crystal growth
Inhibition of hydroxyapatite formation in aqueous solutions by zinc and 1,2-dihydroxy-1,2-bis(dihydroxyphosphonyl)-ethane, 965
Calcite and aragonite formation from aqueous calcium hydrogencarbonate solutions: Effect of induced electromagnetic field on the activity of $CaCO_3$ nuclei precursors, 2457
Kinetic asymmetry between crystal growth and dissolution: Step movement at low temperatures, 3579

Crystalization
Study of the pre-crystallization stage of hydrothermally treated amorphous aluminosilicates through the composition of the aqueous phase, 171
Crystallization of zeolite ZSM-39 studied by ^{13}C and ^{29}Si magic-angle spinning nuclear magnetic resonance spectroscopy, 1839

Crystal structure
X-Ray, Fourier-transform infrared, ^1H and ^{13}C nuclear magnetic resonance, and PM3 studies of $(N{-}H\cdots N)^+$ and $(O{-}H\cdots O)^-$ intramolecular hydrogen bonds in a complex of 1,8-bis(dimethylamino)naphthalene with maleic acid, 2085
Crystal structure determination of $C_3Cl_3^+AlCl_4^-$ and *ab initio* studies of the structure and vibrational spectrum of the trichlorocyclopropenium cation, 3597

Cu–Al–O catalyst
X-Ray photoelectron spectroscopic study of a Cu–Al–O catalyst under H_2 or CO atmospheres, 1257

Cu^{II}–carbon bond
Effect of *N*-alkylation on the rate of β-amine elimination from transients with Cu^{II}–carbon σ bonds, 4045

Cyanonaphthalene
Spectroscopy and dynamics of the first excited state of 1- and 2-cyanonaphthalene cooled in

a supersonic jet, 623
Cyclic alkene
Absolute rate coefficients for the reaction between nitrate radicals and some cyclic alkenes, 2977
Cyclic species
Functionality dependence of the distribution of cyclic species in network formation, 4181
Cyclic voltammetry
Cyclic voltammetry and morphology of polyaniline-coated electrodes containing $[Fe(CN)_6]^{3-/4-}$ ions, 295
Ion transfer facilitated by the neutral carrier *N,N*-dicyclohexyl-*N',N'*-diisobutyl-*cis*-cyclohexane-1,2-dicarboxamide across the water/1,2-dichloroethane interface, 4307
α-Cyclodextrin
Conductance study of the binding of methyl orange, *o*-methyl red and *p*-methyl red anions by α-cyclodextrin in water, 1729
Cyclopentene
Reactions of cyclopentene and deuterium over supported-metal catalysts, 1095
Cyclopropylisocyanate
Structure and conformation of chlorosulfonylisocyanate and cyclopropylisocyanate, 2381
Decarbonylation
Infrared reflection absorption spectroscopy, X-ray photoelectron spectroscopy and temperature-programmed desorption study on the adsorption and decomposition of $Fe(CO)_5$ over silver surfaces, 4387
Defect structure
Paramagnetic point defects in SnO_2 and their reactivity with the surrounding gases. Part 1.—Interaction of oxygen lattice centres with vapour-phase H_2O, air, inert and combustible gases, as revealed by electron paramagnetic resonance spectroscopy, 3711
Role of structural defects and oxygen ion migration in the catalytic activity of La_2O_3, 3833
Degenerate four-wave mixing
Thermometry by degenerate four-wave mixing: *J* dependence of laser-induced grating reflectivity, 2951
Dehydrogeno-aromatization
Dehydrogeno-aromatization of cyclohexanes with suspended noble-metal catalysts, 3641
Density
Thermodynamic behaviour of mixtures. Part 1.—Mixtures of pyridine with β-picoline, γ-picoline, isoquinoline, benzene and cyclohexane at 25 °C, 2001
Thermodynamic study of the ternary system NaCl–H_2O–Et_3N at 25 °C. Part 1.—Volumes, 3761
Density functional theory
'Liquid–vapour' density profiles for fluids in pores from density functional theory, 789
Density functional study of the tetraoxometallates of Cr^{VI}, Mn^{VI} and Fe^{VI}, 3745
Dissociation of hydrogen and nitrogen molecules studied using density functional theory, 3999
Dental apatite
X-Ray photoelectron spectroscopy study on chemical states of fluoride in bovine dentine treated with NaF, 2901
Deuteriation
Temperature dependence of the effect of deuteriation on the chlorine-35 quadrupole resonance frequency in an $Mg(H_2O)_6SnCl_6$ crystal, 3359
Deuterium
Reactions of cyclopentene and deuterium over supported-metal catalysts, 1095
The $2p\sigma_u$–$1s\sigma_g$ electronic spectrum of D_2^+, 3851
Deuterium exchange
Reactions of hydrocarbons over Ru/SiO_2: Exchange with deuterium and the onset of hydrogenolysis, 585
Diamond
Diffuse reflectance infrared Fourier-transform study of the plasma hydrogenation of diamond surfaces, 1383
Thermal hydrogenation of diamond surfaces studied by diffuse reflectance Fourier-transform infrared, temperature-programmed desorption and laser Raman spectroscopy, 1783
Diffuse-reflectance Fourier-transform infrared study of the plasma-fluorination of diamond surfaces using a microwave discharge in CF_4, 3105
Vapour-phase oxidation of diamond surfaces in O_2 studied by diffuse reflectance Fourier-transform infrared and temperature-programmed desorption spectroscopy, 3635
1,2-Diarylethane
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 2.—Pulse and steady-state radiolysis of 1,2-di(pyren-1-yl)ethane in tetrahydrofuran, dimethoxyethane and toluene in the presence of sodium dihydridobis(2-methoxyethoxy) aluminate, 891
Diastereofacial selectivity
Model calculations of chemical interactions. Part 6.—Origin od diastereofacial selectivity in 1,3-dipolar cycloaddition of formonitrile oxide with bicyclo[2,1,0]pent-2-ene and 2,3-dioxabicyclo[2,2,2]oct-5-ene, 3913
Diastereoselectivity
Model calculations of chemical interactions. Part 5.—Diastereofacial selectivity in 1,3-dipolar cycloaddition of formonitrile oxide to norbornene and *cis*-3,4-dichlorocyclobutene, 29
Dibromoalkane
EXAFS spectroscopic studies of the bromine environment in the crystalline inclusion compounds formed between urea and α,ω-dibromoalkanes, 3099
Dication
Electronic-state energies of the $CH_2I_2^{2+}$, CHI_3^{2+} and CI_4^{2+} dications, 2945
Dichloroacetic acid
Conformers, vibrational spectra and infrared-induced rotamerization of dichloroacetic acid in argon and krypton matrices, 4257
1,2-Dichloroethane
Continuous-wave CO_2 laser-induced chain reaction of 1,2-dichloroethane, 4171
Dielectric
Microwave dielectric loss in polycrystalline 3d metal complexes, 3959
Dielectric relaxation
Orientational relaxation in hydrogen-bonded systems: Liquid water, 1975
Orientational relaxation in hydrogen-bonded systems: Aqueous solutions of electrolytes, 1985
Dieletric spectroscopy
Dielectric spectroscopy of the polymerization process of methyl methacrylate, 3477
Differential scanning calorimetry
Comparative electrochemical study of new poly(oxyethylene)–Li salt complexes, 355
Novel differential scanning calorimetric studies of supercooled organic liquids, 509
Glass formation in organic binary liquids studied using differential scanning calorimetry, 2423
Solid–liquid phase transitions and amorphous states in ternary sucrose–glycine–water systems, 3283
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 2.—Melting behaviour and thermodynamic properties of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 or α-SiC powder, 3811
Diffuse interstellar band
On the diffuse interstellar bands, 2269
Neutral and ionized polycyclic aromatic hydrocarbons, diffuse interstellar bands and the ultraviolet extinction curve, 2277
Diffuse interstellar cloud
Observations of molecules in diffuse interstellar clouds, 2261
Diffuse reflectance
Diffusion coefficients of aqueous phenols determined by the Taylor dispersion technique. Evidence for solute adsorption on the walls of Teflon tubing, 113
Moments analysis of strongly coupled diffusion in Taylor dispersion profiles. Sodium hydroxide–sodium dodecyl sulfate–water, 515
Surface structure and reactivity of molybdena–titania catalysts prepared by different methods, 1071
Diffuse reflectance infrared Fourier-transform study of the plasma hydrogenation of diamond surfaces, 1383
Infrared spectroscopic study of the interaction of cations in zeolites with simple molecular probes. Part 3.—Adsorption and polarization of methane and ethane on cationic forms of high-silica zeolites, 1393
Diffuse-reflectance Fourier-transform infrared study of the plasma-fluorination of diamond surfaces using a microwave discharge in CF_4, 3105
Mass spectrometry and *in situ* infrared diffuse reflectance analysis of the decomposition of HCOOH adsorbed on Ln_2O_3-promoted Rh/Al_2O_3 catalysts, 3307
Vapour-phase oxidation of diamond surfaces in O_2 studied by diffuse reflectance Fourier-transform infrared and temperature-programmed desorption spectroscopy, 3635
Diffuse reflectance Fourier-transform infrared studies of hydrogen adsorbed on sodium zeolites, 3995
Diffusion
Corrigendum to Diffusion of pseudo-planar molecules: An experimental evaluation of the molecular effects on diffusion, 867
Frequency response technique measurements of *p*-xylene diffusion in silicalite-1 and -2, 1063
Mutual diffusion coefficients for the systems water–ethanol and water–propan-1-ol at 25 °C, 1969
Diffusion in buffered protein solutions: Combined Nernst–Planck and multicomponent Fick equations, 2775
Effects of long-range forces on oxygen transport in yttria-doped ceria: Simulation and theory, 3123
Measurements of transport rates of C_4 hydrocarbons across a single-crystal silicalite membrane, 3161
Tracer diffusion of ionic micelles: Effects of size and interactions, 3459
Study of diffusion in films on planar substrates by ellipsometry, 4053
Diffusivity and solubility of hydrogen and deuterium in yttrium, 4375
***p*-Diiodobenzene**
Dynamic properties of *p*-diiodobenzene investigated by solid-state ^2H and ^{13}C nuclear magnetic resonance spectroscopy, 3797
β-Diketone
Electrochemical reduction of bis(β-diketones): 1,10-Di(α-cyclohexanone)decane-1,10-dione and 3,14-diacetylhexadecane-2,15-dione. Characterization and electron paramagnetic resonance properties of their electro-generated mononuclear copper(II) complexes, 4299
3,3-Dimethylbut-1-ene
Mechanistic studies of the reactions of 3,3-dimethylbut-1-ene with deuterium over supported-metal catalysts, 2519
Dimethyl sulfoxide
Aggregation of amphiphilic compounds in dimethyl sulfoxide: Example of non-ionic alkyl–fluoroalkyl lipopeptides, 927
Dipeptide
Characterisation of Boc-Lys(Z)-Tyr-$NHNH_2$ dipeptide. Part 1.—Physico-chemical studies on the micelle formation of a dipeptide in the absence and presence of ionic surfactants, 3075
1,3-Dipolar cycloaddition
Model calculations of chemical interactions. Part 6.—Origin od diastereofacial selectivity in 1,3-dipolar cycloaddition of formonitrile oxide with bicyclo[2,1,0]pent-2-ene and 2,3-dioxabicyclo[2,2,2]oct-5-ene, 3913
Discogenic molecule
Charge-transfer complexes of discogenic molecules: A time-resolved study based on Kerr ellipsometry, 37
Dispersion
Small-angle neutron scattering investigations of

the structure of thixotropic dispersions of smectite clay colloids, 4207
Dissociation
Dissociation constants of substituted phenols and homoconjugation constants of the corresponding phenol–phenolate systems in acetonitrile, 119
Dichotomy in dissociative electron capture: Electron paramagnetic resonance detection of iodine atoms in methanol glasses, 1199
Dissociation constants and preferential solvation in some 2-methylpropan-2-ol–alcohol mixtures, 1723
Evaluation of dissociation constants of ammonium ions in aqueous ammonium chloride and potassium chloride solutions and of pertinent higher-order parameters according to the Pitzer approach, 3371
The $2p\sigma_u$–$1s\sigma_g$ electronic spectrum of D_2^+, 3851
Dissociative electron capture
Dissociation of hydrogen and nitrogen molecules studied using density functional theory, 3999
Dissociative recombination
Rate coefficients for interstellar gas-phase chemistry, 2193
Dissolution
Effect of anionic polyelectrolytes on the dissolution of magnetite in thioglycolic acid solutions, 1049
Non-isothermal dissolution of a solid particle in liquid, 1689
Dissolution of amorphous aluminosilicalite zeolite precursors in alkaline solutions. Part 1.—Kinetics of the dissolution, 1817
A new approach to the study of dissolution kinetics, 1883
Kinetic asymmetry between crystal growth and dissolution: Step movement at low temperatures, 3579
Dolomite dissolution kinetics at low pH: A channel-flow study, 3947
DLVO theory
Physico-chemical model of microbial adhesion, 2913
DNA
Electron paramagnetic resonance studies of irradiated D-glucose-6-phosphate ions: Relevance to DNA, 1955
Orientation of large DNA during free solution electrophoresis studied by linear dichroism, 2791
Pre-irradiation with low doses has no detectable effect on the repair of radiation-induced double strand breaks in DNA of chinese hamster V79 cells, 2923
What base pairings can occur in DNA? A distributed multipole study of the electrostatic interactions between normal and alkylated nucleic acid bases, 3407
DNA-binding molecule
Synthesis and characterisation of a new DNA-binding bifunctional ruthenium(II) complex, 3261
Dolomite
Dolomite dissolution kinetics at low pH: A channel-flow study, 3947
Donnan exclusion
Transmission line model for conducting polymer including cations and Donnan exclusion, 2487
Doppler profile
Four-vector study of the spin-changing collision $Ba[(6s)^1(6p)^1, {}^1P_1 \rightarrow (6s)^1(6p)^1, {}^3P_2]/H_2$, 1413
Analysis of product Doppler-broadened profiles generated from photoinitiated bimolecular reactions, 1427
Doppler-resolved laser-induced fluorescence spectroscopy
Stereodynamics of photon-induced reactions *via* Doppler-resolved laser-induced fluorescence spectroscopy: Photodissociation of $HONO_2$ and the reaction of $O(^1D)$ with CH_4, 1435
Double-charge-transfer spectroscopy
Doubly ionized states of hexafluorobenzene studied by high-resolution Auger electron and double-charge-transfer spectroscopies, 1637
Electronic-state energies of the $CH_2I_2^{2+}$, CHI_3^{2+} and CI_4^{2+} dications, 2945
Double-layer capacity
Adsorption of pentaerythritol at the mercury/aqueous sodium fluoride interphase, 181
Drug release
block-Copoly(oxyethylene/oxybutylene/oxyethylene), $E_{40}B_{15}E_{40}$, in aqueous solution: Micellisation, gelation and drug release, 539
Dye
Conductance study of the binding of methyl orange, *o*-methyl red and *p*-methyl red anions by α-cyclodextrin in water, 1729
Kinetic spectroscopy of pyrazolotriazole azomethine dyes, 2385
Alkali-stable iron complexes as mediators for the electrochemical reduction of dispersed organic dyestuffs, 2451
Dynamic light scattering
Time-dependent polydispersity of growing colloidal aggregates: Predictions from dynamic light scattering theory, 2879
Dynamics
Spectroscopy and dynamics of the first excited state of 1- and 2-cyanonaphthalene cooled in a supersonic jet, 623
Dynamic simulation
Dynamic simulation of the adsorption of a flexible chain, 573
ECE process
Theoretical analysis for a second-order ECE process at a rotating-disc electrode, 213
EELS
Inner-shell spectroscopies of solid and gaseous alkylidyne tricobalt nonacarbonyl complexes, 3331
Eigenvector-following method
Locating stationary points for clusters in Cartesian coordinates, 1305
Elastic bending energy
Relative stability of micellar forms, 1749
Electrical conductivity
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 1.—Electrical conductivity of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 powder, 3805
Electrical double-layer
Single-ion activities based on the electrical double-layer model: An indirect test of the Gouy–Chapman theory, 187
Approximate analytical expressions for the properties of an electrical double layer with asymmetric electrolytes, 1229
Electrical potential oscillation
Oscillations of electrical potential differences in the non-electrolyte analogue of the salt-water oscillator, 905
Electric-dipole-forbidden transitions
Probing of alignment and orientation using electric-dipole-forbidden transitions, 1551
Electric field
Optical spectra of spatially oriented molecules: ICl in a strong electric field, 1539
Electrocapillary curve
Adsorption of pentaerythritol at the mercury/aqueous sodium fluoride interphase, 181
Electrocatalysis
Characterisation of carbon-supported Pt–Sn bimetallic catalysts for the electrochemical oxidation of methanol, 151
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 1.—Basis for distinction between capacitance of the double layer and the pseudocapacitance due to adsorbed H in the H_2 evolution reaction at Pt, 235
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 2.—Unfolding of the electrochemically accessible surface of rough or porous electrodes: A case-study with an electrodeposited porous Pt electrode, 243
Partial oxidation of cyclohexane with reductively activated dioxygen on $SmCl_3$ supported on graphite during H_2–O_2 fuel cell reactions, 1791
Electrochemical quartz crystal microbalance
Rectifying behaviour of n-titanium dioxide–polybithiophene semiconductor–polymer bilayers: An electrochemical quartz crystal microbalance investigation, 3941
Electrochemical reduction
Alkali-stable iron complexes as mediators for the electrochemical reduction of dispersed organic dyestuffs, 2451
Electrochemical reduction of bis(β-diketones): 1,10-Di(α-cyclohexanone)decane-1,10-dione and 3,14-diacetylhexadecane-2,15-dione. Characterization and electron paramagnetic resonance properties of their electro-generated mononuclear copper(II) complexes, 4299
Electrochemistry
Adsorption of pentaerythritol at the mercury/aqueous sodium fluoride interphase, 181
Single-ion activities based on the electrical double-layer model: An indirect test of the Gouy–Chapman theory, 187
In situ far-infrared evidence for a potential dependence of silver–water interactions, 195
A.c. impedance study of rate constants for two-phase electron-transfer reactions, 199
Photoinitiated electron-transfer reactions across the interface between two immiscible electrolyte solutions, 207
Theoretical analysis for a second-order ECE process at a rotating-disc electrode, 213
Comproportionation in propylene carbonate of substituted bipyridyliums. Rates and equilibria by rotating ring–disc electrode and associated electrochemical studies, 219
Electrooxidation of ethylene glycol on bismuth-modified Pt(111), 223
Heterogeneous catalysis in solution. Part 26.—Electrochemical and kinetic studies of the reaction between *N*,*N*-dimethyl-*p*-phenylenediamine and chloropentaamminocobalt(III) at platinum, gold and silver surfaces, 229
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 1.—Basis for distinction between capacitance of the double layer and the pseudocapacitance due to adsorbed H in the H_2 evolution reaction at Pt, 235
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 2.—Unfolding of the electrochemically accessible surface of rough or porous electrodes: A case-study with an electrodeposited porous Pt electrode, 243
Expulsion of borate ions from the silver/solution interfacial region during underpotential deposition discharge of Bi^{III} in borate buffer, 251
Spatial distributions and saturation number densities of lead nuclei deposited on vitreous carbon electrodes, 255
Valence and core photoemission of the films formed electrochemically on aluminium in nitric acid, 263
Electrochemical effects on friction between metal oxide surfaces in aqueous solutions, 267
Electrochemical crystallization of tetraphenylphosphonium and tetraphenylarsonium fullerides, 273
Electrochemical behaviour of polyacetylene–polyisoprene copolymers, 277
Morphology control in electrochemically grown conducting polymer films. Part 2.—Effects of cathodic bias on anodically grown films studied by spectroscopic ellipsometry and quartz-crystal microbalance, 287
Cyclic voltammetry and morphology of polyaniline-coated electrodes containing $[Fe(CN)_6]^{3-/4-}$ ions, 295
Anion movement and carrier type in polypyrrole/dodecyl sulfate, 303
Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 311
Coupling of ion and electron transport during impedance measurements on a conducting polymer with similar ionic and electronic conductivities, 321
Application of a transmission line model to impedance studies on a poly(vinylferrocene)-modified electrode, 327
Cyclic voltammetry of benzo-15-crown-5

ether-vinyl-bipyridyl ligands, their ruthenium(II) complexes and bismethoxyphenyl-vinyl-bipyridyl ruthenium(II) complexes. Electrochemical polymerization studies and supporting electrolyte effects, 333
Role of film history and observational timescale on redox switching kinetics of electroactive films. Part 1.—A new model for permselective films with polymer relaxation processes, 339
Plasticiser-induced local structure in polymer electrolytes, 349
Comparative electrochemical study of new poly(oxyethylene)–Li salt complexes, 355
Flexible (Kapton-based) microsensor arrays of high stability for cardiovascular applications, 361
Calibration solutions for the simultaneous potentiometric measurement of sodium, potassium and calcium in blood plasma: Examination of the electrochemical factors affecting precision and accuracy in direct potentiometric clinical analysers, 369
Enzyme catalysis at hydrogel-modified electrodes with redox polymer mediator, 377
Oxidation of glucose at electrodeposited platinum electrodes in alkaline solution, 385
Approximate analytical expressions for the properties of an electrical double layer with asymmetric electrolytes, 1229
Ellipsometric techniques for the characterisation of electrode surfaces, 1593
Surface processes at electrolyte/highly doped semiconductor interfaces analysed by electroreflectance modelling, 1717
Can membrane transport parameters that vary with time be derived from electrochemical measurements in an external electrolyte?, 2783
Corrigendum to Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 3181
Polymer electrolytes, 3187
Role of film history and observational timescale in redox switching kinetics of electroactive films. Part 2.—Visualizing electrochemical redox switching pathways involving four or more distinct relaxation times, 3779

Electrocrystallization
Electrochemical crystallization of tetraphenylphosphonium and tetraphenylarsonium fullerides, 273

Electrode
Ellipsometric techniques for the characterisation of electrode surfaces, 1593

Electrode potential
Temperature coefficients of electrode potentials and Gibbs energies, entropies and enthalpies of transfer of Ag^+, Na^+ and Tl^+ from *N,N*-dimethylformamide to its mixtures with *N,N*-dimethylthioformamide and with water, 2007
Temperature coefficients of $Cu|Cu^{2+}$ and $Hg|Hg^{2+}$ electrode potentials and Gibbs energies, entropies and enthalpies of transfer for Cu^{2+} and Hg^{2+}, 3553

Electrodynamics
Chronoamperometric mobilities in the electrodynamics of a non-aqueous sol: Depletion, turbulence and electron transfer in sol electrodeposition, 3091

Electrokinetics
Electrokinetics of polystyrene latices: The role of the hydrophobic surface, 521
Electrokinetic potential of the alkane/aqueous electrolyte interface, 527

Electrolyte
Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 311
Attraction among macroions in electrolytes: A semianalytical demonstration, 739
Approximate analytical expressions for the properties of an electrical double layer with asymmetric electrolytes, 1229
Pitzer's parameters for thallium(I) chloride in aqueous solutions at 298.15 K from solubility measurements in TlCl–LiCl–H_2O and TlCl–KCl–H_2O systems, 1353
Standard Gibbs energies of transfer of some electrolytes from water to aqueous sucrose solutions at 298.15 K, 1741
Orientational relaxation in hydrogen-bonded systems: Aqueous solutions of electrolytes, 1985
Corrigendum to Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 3181
Mechanism of deposition of Co^{2+} and Ni^{2+} ions on the interface between pure and F^--doped γ-alumina and the impregnating solution, 4101

Electron delocalization
3d Electron delocalization studied by *ortho*- to *para*-positronium conversion reactions, 3737

Electron energy loss spectroscopy
Auger electron, electron energy loss, secondary electron emission and secondary ion mass spectroscopic studies on the oxidation of hafnium at room temperature, 3611

Electronic angular momentum
Comparison equation approach to the locking of electronic angular momentum to the molecular axis in atomic collisions, 1567

Electronic motions
The coupling of nuclear and electronic motions in molecules, 2321

Electronic spectroscopy
Investigation of the electronic spectra of furfuryl- and 2-thienyl-imino derivatives of some heterocycles: Molecular orbital treatment, 671
Spectroscopy and electronic structure of ion-pair states, 1885
The $2p\sigma_u$–$1s\sigma_g$ electronic spectrum of D_2^+, 3851

Electronic state
Theoretical studies of several electronic states of the NO_2^- anion, 991

Electronic structure
$Zn_4O(O_2CNEt_2)_6$: A further molecular model of ZnO, 4363

Electron paramagnetic resonance spectroscopy
Detection of radical pairs in glassy systems, 59
Dichotomy in dissociative electron capture: Electron paramagnetic resonance detection of iodine atoms in methanol glasses, 1199
Partial oxidation of methane with oxygen over magnesium oxide at low temperatures, 1263
Electron paramagnetic resonance spectroscopic studies of organic radicals formed in bone during fracture, 1285
Influence of cation, solvent and temperature on *Z*–*E* isomerisation of radical ion pairs derived from (*Z*)- and (*E*)-1,2-bis(2,4,6-trimethylbenzoyl)ethenes by chemical reduction with alkali metals and magnesium. A structural, electron paramagnet resonance, ENDOR and TRIPLE resonance study, 1327
Electron paramagnetic resonance, electron spin echo modulation and electron nuclear double resonance studies on the photoionization of *N*-alkylphenothiazines in cetyltrimethylammonium bromide–alcohol reverse micelles. Effects of alkyl chain length of alkylphenothiazines, reverse micellar water pool size and cosurfactant alcohol, 1377
Adsorption of $[Cr(CN)_5NO]^{3-}$ on TiO_2 from solution studied by electron paramagnetic resonance spectroscopy, 1809
Electron paramagnetic resonance studies of irradiated D-glucose-6-phosphate ions: Relevance to DNA, 1955
Investigation of single, sharp line signals in modulated microwave absorption spectra at low magnetic fields in $YBa_2Cu_3O_{7-\delta}$ single crystal, 2063
X-Ray absorption spectroscopic and electron paramagnetic resonance studies on the strong metal–support interaction of platinum supported on titania dispersed on silica, 2067
Hyperfine anisotropy and mobility of organic radical cations in zeolites, 2101
Radicals containing both a phosphoranylidene and a ketone group: An electron paramagnetic resonance/electron nuclear double resonance study of their structure and *ab initio* investigations on the captodative effects, 2391
Spectroscopic characterization of CuTh oxide catalysts in decomposition of isopropyl alcohol, 2545
Nature of the S_2 state electron paramagnetic resonance signals from the oxygen-evolving complex of photosystem I: Q-band and oriented X-band studies, 2863
Ab initio calculations on the hyperfine isotope effect between $C_{60}H$ and $C_{60}Mu$, 2957
Electron paramagnetic resonance studies of hole mobility and localisation in haemoglobin, 3071
Electron paramagnetic resonance of the interaction of semiquinone, Na^+ ion pairs with phosphatidylcholine in ethereal solvents, 3363
Temperature dependence of O_3^- electron paramagnetic resonance signals in KCl, 3691
Single-crystal electron paramagnetic resonance of (dialkyldithiocarbamato-*S,S'*)[hydrotris (3,5-dimethylpyrazolyl)-borato]oxovanadium (IV) (alkyl = ethyl or *n*-propyl), 3695
Effects of the modulation of magnetic exchange interactions on the electron paramagnetic resonance spectra of some carboxylate-bridged oxovanadium(IV) dimers, 3705
Paramagnetic point defects in SnO_2 and their reactivity with the surrounding gases. Part 1.—Interaction of oxygen lattice centres with vapour-phase H_2O, air, inert and combustible gases, as revealed by electron paramagnetic resonance spectroscopy, 3711
Electron paramagnetic resonance investigation of the interaction of CO with the surface of electron-rich magnesium oxide: Evidence for the CO^- radical anion, 3715
Electron paramagnetic resonance studies on manganese(II)-containing zinc and cadmium sulfide materials, 3723
Electron paramagnetic resonance study of La cuprate-based catalysts for phenol oxidation, 3727
Electron spin-echo studies of British coals at S-band, 3733
Membrane–buffer partition coefficients of semiquinones using the spin-broadening technique, 3773
Electron paramagnetic resonance and proton matrix electron nuclear double resonance studies of *N,N,N',N'*-tetramethylbenzidine photoionization in sodium dodecyl sulfate micelles: Structural effects of added alcohols, 4085
Anionic coordination involvement in solid-state ion-exchanged CuH-SAPO-*n* (*n* = 5, 11 and 34) molecular sieves, 4137
Structure of the *p*-aminophenoxyl radical, 4177
Electron paramagnetic resonance characterization and thermal decay of radicals trapped in a photopolymerized triacrylate monomer, 4215
Electrochemical reduction of bis(β-diketones): 1,10-Di(α-cyclohexanone)decane-1,10-dione and 3,14-diacetylhexadecane-2,15-dione. Characterization and electron paramagnetic resonance properties of their electro-generated mononuclear copper(II) complexes, 4299
Electron paramagnetic resonance and electron spin echo modulation spectroscopic studies on the location and absorbate interactions of paramagnetic Pd ion species in Pd^{II}-exchanged K-L zeolite, 4397

Electron–phonon coupling
Variable-temperature infrared spectroscopic study of some molybdenum bronzes: Evidence for electron–photon coupling, 3603

Electron spin-echo spectroscopy
Effects of Fe^{3+} on electron spin echo signals in zeolites, 2559
Electron spin–echo spectroscopy of the [Fe]-hydrogenase from *Desulfovibrio desulfuricans*, strain ATCC 7757, 2869
Electron spin-echo envelope modulation studies of the [3Fe–4S] cluster of *Escherichia coli* fumarate reductase, 3685
Electron spin-echo studies of British coals at S-band, 3733

Electron transfer
A.c. impedance study of rate constants for two-phase electron-transfer reactions, 199
Photoinitiated electron-transfer reactions across the interface between two immiscible electrolyte solutions, 207
Dynamics of the fluorescence quenching of 1,4-dihydroxy-, 1-amino-4-hydroxy- and 1,4-diamino-9,10-anthraquinones by aromatic hydrocarbons, 683
Light-induced triplet electron transfer in cyclohexane-bridged porphyrin–quinones detected by time-resolved electron paramagnetic resonance spectroscopy, 2853
Non-appearance of multiple Rehm–Weller plots in the case of charge shift ($A^{+\bullet} + D \rightarrow A^{\bullet} + D^{\bullet+}$) fluorescence quenching, 4267
Electro-osmotic mobility
Electrokinetic potential of the alkane/aqueous electrolyte interface, 527
Electrooxidation
Electrooxidation of ethylene glycol on bismuth-modified Pt(111), 223
Electrophoresis
Electrical migration in convective electrophoresis: Modelling and membrane separation of bovum serum albumin (BSA) and cytochrome *c*, 99
Orientation of large DNA during free solution electrophoresis studied by linear dichroism, 2791
Electroreduction
An *in situ* Fourier-transform infrared study of the electroreduction of polybithiophene, 921
Theoretical study of the electroreduction of halogenated aromatic compounds. Part 2.—Bromine and chlorine derivatives in different organic solvents, 3931
Electroreflectance
Surface processes at electrolyte/highly doped semiconductor interfaces analysed by electroreflectance modelling, 1717
Electrostatics
Electrochemical effects on friction between metal oxide surfaces in aqueous solutions, 267
Electrostatic interaction energies in lactate dehydrogenase catalysis, 2707
What base pairings can occur in DNA? A distributed multipole study of the electrostatic interactions between normal and alkylated nucleic acid bases, 3407
Influence of electrostatic interactions on β-casein layers adsorbed on polystyrene latices, 3419
Ellipsometry
Morphology control in electrochemically grown conducting polymer films. Part 2.—Effects of cathodic bias on anodically grown films studied by spectroscopic ellipsometry and quartz-crystal microbalance, 287
Ellipsometric techniques for the characterisation of electrode surfaces, 1593
Study of diffusion in films on planar substrates by ellipsometry, 4053
Emission spectroscopy
Growth of carbon clusters. The simplest process $2C_1 \rightarrow C_2$ observed *via* spectrometry and chemical reaction, 1001
Emsley–Luckhurst–Stockley theory
Deuterium nuclear magnetic resonance study of the orientational order in the nematic phase of 4-*n*-pentyloxy-4′-cyanobiphenyl. Tests of the Emsley–Luckhurst–Stockley theory and of the Haller extrapolation, 3783
EMT zeolite
Acidity and location of cations (H^+, Na^+) in HEMT and NaEMT determined using benzene adsorption, 857
Encapsulation
Fourier-transform infrared study on the encapsulation of carbon monoxide in cation-exchanged X-zeolites, 1143
Encounter complex
Extended mechanism of excimer formation, 15
ENDOR
Influence of cation, solvent and temperature on *Z*–*E* isomerisation of radical ion pairs derived from (*Z*)- and (*E*)-1,2-bis(2,4,6-trimethylbenzoyl)ethenes by chemical reduction with alkali metals and magnesium. A structural, electron paramagnet resonance, ENDOR and TRIPLE resonance study, 1327
Electron paramagnetic resonance, electron spin echo modulation and electron nuclear double resonance studies on the photoionization of *N*-alkylphenothiazines in cetyltrimethylammonium bromide–alcohol reverse micelles. Effects of alkyl chain length of alkylphenothiazines, reverse micellar water pool size and cosurfactant alcohol, 1377
Radicals containing both a phosphoranylidene and a ketone group: An electron paramagnetic resonance/electron nuclear double resonance study of their structure and *ab initio* investigations on the captodative effects, 2391
Electron paramagnetic resonance and proton matrix electron nuclear double resonance studies of *N*,*N*,*N*′,*N*′-tetramethylbenzidine photoionization in sodium dodecyl sulfate micelles: Structural effects of added alcohols, 4085
Energy transfer
Intermolecular energy transfer between phenanthrene and lanthanide ions in aqueous micellar solution, 873
Enthalpy
Excess molar enthalpies of steam–cyclohexane and steam–benzene from 448.2–698.2 K and up to 14 MPa, 77
Solubility of nickel chloride in molten sodium tetrachloroaluminate saturated with sodium chloride over the temperature range 200–400 °C, 3817
Enthalpy of formation
Enthalpies of formation of buckminsterfullerene (C_{60}) and of the parent ions C_{60}^{+}, C_{60}^{2+}, C_{60}^{3+} and C_{60}^{-}, 3541
Enthalpy of transfer
Thermodynamics of micellization of some decyl poly(oxyethylene glycol) ethers in aqueous urea solutions, 3465
Enzyme
Enzymatic reaction in water-in-oil microemulsions. Part 1.—Rate of hydrolysis of a hydrophilic substrate: acetylsalicylic acid, 1993
Biophysical study of halophilic malate dehydrogenase in solution: Revised subunit structure and solvent interactions of native and recombinant enzyme, 2659
Enzyme catalysis
Enzyme catalysis at hydrogel-modified electrodes with redox polymer mediator, 377
Electrostatic interaction energies in lactate dehydrogenase catalysis, 2707
Enzyme–substrate binding
Microcalorimetry of enzyme–substrate binding: Yeast phosphoglycerate kinase, 2693
Equation of state
A method for introducing scaling behaviour into a classical equation of state, 69
Excess molar enthalpies of steam–cyclohexane and steam–benzene from 448.2–698.2 K and up to 14 MPa, 77
Equilibrium geometry
Calculated spectroscopic constants and the equilibrium geometry of HCCCl, 3669
***Escherichia coli* fumarate reductase**
Electron spin-echo envelope modulation studies of the [3Fe–4S] cluster of *Escherichia coli* fumarate reductase, 3685
Ethene
Effect of vibrational interaction on the rate of dissociation of adsorbed molecules: Ethene on a nickel surface, 2049
Ethylene glycol
Electrooxidation of ethylene glycol on bismuth-modified Pt(111), 223
EXAFS
In situ EXAFS study of the effect of hydrocarbon deposition over Pt/Al_2O_3 and $Pt–Re/Al_2O_3$ catalysts, 159
Plasticiser-induced local structure in polymer electrolytes, 349
EXAFS spectroscopic studies of the bromine environment in the crystalline inclusion compounds formed between urea and α,ω-dibromoalkanes, 3099
Ultraviolet–visible–near-infrared and EXAFS study of Co^{II} coordination chemistry in post-doped silica sol–gel glasses, 4115
Excess property
Excess molar enthalpies of steam–cyclohexane and steam–benzene from 448.2–698.2 K and up to 14 MPa, 77
Excess molar enthalpies of methanol–*n*-pentane and methanol–*n*-hexane from 454.4 to 522.7 K and up to 6 MPa, 1345
Ultrasonic velocity, permittivity, density, viscosity and proton nuclear magnetic resonance measurements of binary mixtures of benzonitrile with organic solvents, 1737
Thermodynamic behaviour of mixtures. Part 2.—Mixtures of acetonitrile with β-picoline, γ-picoline, 2,6-lutidine, isoquinoline and benzene at 25 °C, 3049
Uses and limitations of rigid lattice models for rationalising excess thermodynamic functions of binary liquid mixtures at low pressures, 3767
Nuclear magnetic resonance relaxation, permittivity, viscosity and ultrasonic velocity measurements in binary mixtures of methanol and tetrahydrofuran, 3955
Excess molar enthalpies of ethanol–hexane, ethanol–cyclohexane and ethanol–benzene from 453.5 to 522.9 K and up to 4.5 MPa, 4193
Excimer formation
Extended mechanism of excimer formation, 15
Exciplex
Effect of the size of the chelate ring on the stability of cyclic exciplexes between the cadmium($5\ ^3P_1$) atom and diamines, 703
Excited-state
Absolute rate data for the reactions of ground-state atomic carbon, $C[2p^2(^3P_J)]$, with alkenes investigated by time-resolved atomic resonance absorption spectroscopy in the vacuum ultraviolet, 7
Excited-state reactions of triphenylpyrylium ion with cinnamate derivatives: Triplet-mediated isomerization and singlet-mediated dimerization, 465
Excited state properties of thiaporphyrins and their dications, 677
Optical spectra of spatially oriented molecules: ICl in a strong electric field, 1539
Alignment and orientation in $Li(2p_m)–H^+$ charge-transfer collisions, 1573
Excluded volume effect
Molecular interactions in cosolvent ternary polymer systems, 1765
Exothermal reaction
Phase and chemical transformations in the self-propagating wave of an exothermal reaction in a mixture of organic powders, 727
FACSIMILE computer code
Temperature dependence of the rate constant for the reaction H + OH in liquid water up to 200 °C, 485
Far-infrared spectroscopy
Far-infrared study of heteroconjugated and homoconjugated hydrogen bonds between trimethylamine *N*-oxide and various carboxylic acids as a function of the pK_a of the acid, 1733
Faujasite zeolite
^{129}Xe Nuclear magnetic resonance study of faujasite zeolites of varying aluminium content, 3841
Ferromagnetic resonance spectroscopy
Catalytical conversion of silicon tetrachloride to trichlorosilane. Characterization of the nickel silicalite catalyst by ferromagnetic resonance spectroscopy, 1085
Fick equation
Diffusion in buffered protein solutions: Combined Nernst–Planck and multicomponent Fick equations, 2775
Filament structure
Muscle thin-filament structure and regulation. Actin sub-domain movements and the tropomyosin shift modelled from low-angle X-ray diffraction, 2717
Film
Valence and core photoemission of the films formed electrochemically on aluminium in nitric acid, 263
Effect of electrolyte concentration and redox centre oxidation state on the layer mass of osmium-containing poly(4-vinylpyridine)

films, 1695
Behaviour of films of regenerated cellulose in strongly alkaline environments. Estimation of non-homogeneity from ionic conductance, 3427
Entry and spreading of alkane drops at the air/surfactant solution interface in relation to foam and soap film stability, 4313
Film drainage
Aqueous film drainage at the quartz/water/air interface, 817
Fischer–Tropsch synthesis
Effect of the support on the Fischer–Tropsch synthesis with Co/Nb_2O_5 catalysts, 3975
Flash photolysis
Kinetic studies and *ab initio* investigations of the reactions of atomic bromine with methylsilane and dimethylsilane, 419
Flash photolysis study of the UV spectrum and kinetics of reactions of the acetonylperoxy radical, 2993
Triplet pathways in the *cis* ⇄ *trans* photoisomerization of 4-acetyl- and 4-benzoyl-stilbene, 4027
Flexibility
Variable-pressure infrared studies on the molecular flexibility of the model lubricant 2-ethylhexyl benzoate (EHB), 881
Flexible chain
Dynamic simulation of the adsorption of a flexible chain, 573
Flory–Huggins theory
Sorption of organic solvents into dense silicone membranes. Part 1.—Validity and limitations of Flory–Huggins and related theories, 4339
Flow calorimetry
Excess molar enthalpies of methanol–*n*-pentane and methanol–*n*-hexane from 454.4 to 522.7 K and up to 6 MPa, 1345
Excess molar enthalpies of methanol–cyclohexane and methanol–benzene from 454.2 to 523.0 K and up to 4 MPa, 3375
Excess molar enthalpies of ethanol–hexane, ethanol–cyclohexane and ethanol–benzene from 453.5 to 522.9 K and up to 4.5 MPa, 4193
Fluorescence
Extended mechanism of excimer formation, 15
Solvatochromism of a typical merocyanine dye. Further investigations, 55
Photochemistry on surfaces: Solvent–matrix effect on the swelling of cellulose. An emission and absorption study of adsorbed auramine O, 1937
Interaction of urea with fluorophores bound to protein surfaces, 1959
Intramolecular charge-transfer fluorescence of 4-(4-cyano-1-naphthylmethylene)-1-phenylpiperidine in cyclohexane–methyl acetate binary mixtures and related aliphatic esters. Polarity *vs.* mobility control of the relaxation of a highly dipolar excited state, 2403
Relaxation processes in the excited state of phenylsiloxanes, 3007
Alignment of diatomic molecules in a free-jet expansion, 3217
Influence of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine (ZnPC), 3347
Fluorescence depolarization
Global target analysis of fluorescence depolarization in model membranes using exponential splines, 2815
Fluorescence quenching
Excited-state reactions of triphenylpyrylium ion with cinnamate derivatives: Triplet-mediated isomerization and singlet-mediated dimerization, 465
Dynamics of the fluorescence quenching of 1,4-dihydroxy-, 1-amino-4-hydroxy- and 1,4-diamino-9,10-anthraquinones by aromatic hydrocarbons, 683
Non-spherical micelles in the sodium dodecylsulfate–brine system. A fluorescence quenching and nuclear magnetic resonance study, 1759
Fluorescence quenching of chlorophyll-*a* in non-ionic micelles. Effect of micellar and quencher concentrations on the static and dynamic quenching parameters, 1925
Non-appearance of multiple Rehm–Weller plots in the case of charge shift ($A^{+\bullet} + D \rightarrow A^{\bullet} + D^{\bullet+}$) fluorescence quenching, 4267
Comparative electron-transfer quenching rates of 9,10-dicyanoanthracene by various donors in solvents of different polarities, 4271
Fluorescence spectroscopy
Photophysics, molecular reorientation in solution and X-ray structure of a new fluorescent probe, 1,7-diazaperylene, 49
Spectroscopic properties of a triarylpyrylium cation, 457
Spectroscopy and dynamics of the first excited state of 1- and 2-cyanonaphthalene cooled in a supersonic jet, 623
A kinetic investigation of the reaction $Ca + O_3$ over the temperature range 213–383 K, 763
Influence of acidity on the fluorescence spectra of 2-pyridylbenzimidazoles in aqueous solution, 885
Fluoridation
X-Ray photoelectron spectroscopy study on chemical states of fluoride in bovine dentine treated with NaF, 2901
Fluorinated hydrotreatment catalyst
Fluorinated hydrotreatment catalysts. Acidity and carbon deposition on fluorine–nickel–molybdenum/γ-alumina catalysts, 3157
Formamide
Rotation about the C—N bond in formamide: An *ab initio* molecular orbital study of structure and energetics in the gas phase and in solution, 2631
Fourier-transform infrared photo-acoustic spectroscopy
Special data handling techniques for Fourier-transform infrared photo-acoustic spectra. Estimation and characterization of the N contents on ammoniated trichlorosilylated silica gel, using partial least-squares regression and curve fitting on the Si—H stretching vibration, 63
Fourier-transform infrared photoacoustic studies of hydrogenated diamond surfaces, 749
Fourier-transform infrared spectroscopy
X-Ray diffraction, high-resolution transmission electron microscopy and Fourier-transform infrared study of Ca-doped Al_2O_3, 135
Anion movement and carrier type in polypyrrole/dodecyl sulfate, 303
Infrared and quantitative adsorption study of coordinatively unsaturated cations on magnesium hydroxide, 579
Attenuated total reflection Fourier-transform infrared spectroscopic study of ion–solvent and ion–ion interactions in alkali-metal perchlorate–acetonitrile solutions, 811
Fourier-transform infrared spectroscopic study of acetonitrile adsorbed on silica-supported nickel and nickel oxide, 837
An *in situ* Fourier-transform infrared study of the electroreduction of polybithiophene, 921
Surface structure and reactivity of molybdena–titania catalysts prepared by different methods, 1071
Combined temperature-programmed desorption and Fourier-transform infrared spectroscopy study of CO_2, CO and H_2 interactions with model ZnO/SiO_2, Cu/SiO_2 and $Cu/ZnO/SiO_2$ methanol synthesis catalysts, 1109
In situ Fourier-transform infrared studies of $CO–H_2$ reactions over $Ru–Rh/SiO_2$ catalysts at high pressure and temperature, 1117
Fourier-transform infrared spectroscopic studies of the adsorption of ketene on silica, 1121
Fourier-transform infrared spectroscopic study of adsorption of ketene on zinc oxide, 1127
Fourier-transform infrared study on the encapsulation of carbon monoxide in cation-exchanged X-zeolites, 1143
Na^+ polarizability due to collective Na^+ ion motion in disodium salts of 2,6-bis(diethylaminomethyl)phenolate di-*N*-oxides as a function of the electron density at the O atom of the phenolate group, 1211
Fourier-transform infrared study of the protonation of the zeolitic lattice. Influence of silicon : aluminium ratio and structure, 1271
Fourier-transform infrared study of the gas-phase thermolysis of trifluoroacetic acid, 2409
Infrared evidence for the α-helical-type structure of very simple *N*-octanoyl-L-glutamic acid oligomers (residue number, $N = 1–4$) and for the $\alpha\text{-}CO_2^-$ group effect on their $\alpha \rightarrow \beta$-like transition, 2743
Mechanisms of the Cl-atom-initiated oxidation of acetone and hydroxyacetone in air, 2983
Diffuse-reflectance Fourier-transform infrared study of the plasma-fluorination of diamond surfaces using a microwave discharge in CF_4, 3105
Fourier-transform infrared characterization of an aluminium nitride surface, 3111
Fourier-transform infrared and Raman spectra of pure and Al-, B-, Ti- and Fe-substituted silicalites: Stretching-mode region, 4123
Fourier-transform infrared study of the oxidation of ethene on MoO_3/TiO_2 catalysts doped with alkali metals, 4131
Fourier-transform microwave spectroscopy
Rotational spectra of *tert*-butyl bromide and iodide measured in the millimetre-wave region and by Fourier-transform techniques, 397
Four-vector correlation experiment
Four-vector study of the spin-changing collision $Ba[(6s)^1(6p)^1, {}^1P_1 \rightarrow (6s)^1(6p)^1, {}^3P_2]/H_2$, 1413
Fractal analysis
Are the pore and surface morphologies of real catalysts fractal?, 4109
Free-jet expansion
Alignment of diatomic molecules in a free-jet expansion, 3217
Free radical
Kinetics and product study of the self-reactions of allyl and allyl peroxy radicals at 296 K, 433
Multiphoton ionisation spectroscopy of free radical species, 1153
Temperature dependence of g values for H_2O and D_2O irradiated with low linear energy transfer radiation, 1193
Electron paramagnetic resonance spectroscopic studies of organic radicals formed in bone during fracture, 1285
Corrigendum to Rate constants for the reductions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 4251
Frequency response technique
Frequency response technique measurements of *p*-xylene diffusion in silicalite-1 and -2, 1063
Frequency up-conversion
Frequency up-conversion in fluid and solid solutions of the oxazine dye, Rhodamine B, 4013
Friction
Electrochemical effects on friction between metal oxide surfaces in aqueous solutions, 267
Comparison of several frequency-dependent friction models for the description of liquid-phase reaction dynamics, 1677
Fuel cell
Partial oxidation of cyclohexane with reductively activated dioxygen on $SmCl_3$ supported on graphite during $H_2–O_2$ fuel cell reactions, 1791
Fullerene
Radiation stability of fullerenes: Pulse radiolysis of C_{60} and C_{70} in hydrocarbon solvents, 95
Laboratory study of carbon particles and clusters, 2285
Enthalpies of formation of buckminsterfullerene (C_{60}) and of the parent ions C_{60}^+, C_{60}^{2+}, C_{60}^{3+} and C_{60}^-, 3541
Gallium incorporation
Disruption of the MFI framework by the incorporation of gallium, 1131
Gallosilicate
Disruption of the MFI framework by the incorporation of gallium, 1131
Gas/liquid interface
Investigation of dynamical processes at liquid surfaces by molecular scattering, 3877
Gas-phase kinetics
Kinetics of elementary reactions at low temperatures: rate constants for the reactions of OH with HCl ($298 \geqslant T/K \geqslant 138$), CH_4

($298 \geqslant T/K \geqslant 178$) and C_2H_6 ($298 \geqslant T/K \geqslant 138$), 631
Kinetic investigation of the time-resolved atomic fluorescence Sr($5\,^3P_1 \rightarrow 5\,^1S_0$) and molecular chemiluminescence SrCl($A\,^2\Pi$, $B\,^2\Sigma^+ \rightarrow X\,^3\Sigma^+$) following the pulsed dye-laser generation of Sr($5\,^3P_J$) in the presence of CH_3Cl and CF_3Cl, 1645
Rate of reaction between CN radicals and vibrationally excited HCl, 2355
Absolute rate coefficients for the reaction between nitrate radicals and some cyclic alkenes, 2977
Mechanisms of the Cl-atom-initiated oxidation of acetone and hydroxyacetone in air, 2983
Flash photolysis study of the UV spectrum and kinetics of reactions of the acetonylperoxy radical, 2993
Continuous-wave CO_2 laser-induced chain reaction of 1,2-dichloroethane, 4171
First kinetic measurements on [$^2H_2$]silylene: Absolute rate constant for the reaction $SiD_2 + H_2$, 4405

Gas-phase reaction
Reactions of cyclopentene and deuterium over supported-metal catalysts, 1095

Gas–solid reaction
Modelling of the kinetics of a gas–solid reaction involving a surface transient, 3629

Gay–Berne potential
Monte Carlo investigations of a Gay–Berne liquid crystal, 4069

Gelation
block-Copoly(oxyethylene/oxybutylene/oxyethylene), $E_{40}B_{15}E_{40}$, in aqueous solution: Micellisation, gelation and drug release, 539
Gelation of diblock copoly(oxyethylene/oxybutylene) in aqueous solution, 1243

Gel filtration chromatography
Chromatographic study on stepwise aggregation patterns of zwitterionic derivatives of cholic acid, 4355

Germanium
Investigation of the collisional behaviour of electronically excited germanium atoms, Ge[$(4p)^2(^1D_2)$], by time-resolved atomic resonance absorption spectroscopy in the ultraviolet, 1653
Geometries and energies of small Ge_n ($n = 2$–6) clusters: An *ab initio* molecular orbital study, 2961

Gibbs energy of transfer
Standard Gibbs energies of transfer of some electrolytes from water to aqueous sucrose solutions at 298.15 K, 1741

Glass
Detection of radical pairs in glassy systems, 59
Novel differential scanning calorimetric studies of supercooled organic liquids, 509
Glass formation in organic binary liquids studied using differential scanning calorimetry, 2423
^{31}P Magic-angle spinning nuclear magnetic resonance spectroscopy of calcium phosphate glasses, 3297

Global target analysis
Global target analysis of fluorescence depolarization in model membranes using exponential splines, 2815

Globular protein
Lost hydrogen bonds and buried surface area: Rationalising stability in globular proteins, 2609
Interaction of the tetramethylammonium ion with the lysozyme molecule, studied using neutron diffraction, 2701

Glucoamylase
Scanning tunnelling microscopy of *Aspergillus niger* glucoamylases, 2595

Glucose
Oxidation of glucose at electrodeposited platinum electrodes in alkaline solution, 385

Gold
Superadditive catalysis of homogeneous redox reactions with mixed silver–gold colloids, 2479

Gouy–Chapman theory
Single-ion activities based on the electrical double-layer model: An indirect test of the Gouy–Chapman theory, 187

Graphite
Energetics for carbon clusters produced directly by laser vaporization of graphite: Dependence on laser power and wavelength, 1667
Partial oxidation of cyclohexane with reductively activated dioxygen on $SmCl_3$ supported on graphite during H_2–O_2 fuel cell reactions, 1791
Experimental determination of the atomic quadrupole moment of graphite, 1909
Experimental and computer modelling studies of carbon-supported metal complexes. Part 2.—Molecular mechanics study of the adsorption of tetraaza[14]annulenes and their nickel(II) complexes by a carbon surface, 3963

Graphitic carbon
High-resolution electron microscopy of tubule-containing graphitic carbon, 1189

Graph theory
Graph generation: Quasicrystal-like benzenoid systems, 909
Toroidal polyhexes, 1945
Easy method for the calculation of the algebraic structure count of phenylenes, 2413

Group 14 methylene–methane complexes
Group 14 methylene–methane-type complexes: A theoretical study, 775

***g* value**
Temperature dependence of *g* values for H_2O and D_2O irradiated with low linear energy transfer radiation, 1193

H_2^+
Microwave electronic spectroscopy, electric field dissociation and photofragmentation of the H_2^+ ion, 603

H_2S (D_2S)
Translational spectroscopy of H (D) atom fragments arising from the photodissociation of H_2S (D_2S): A redetermination of D_0(S—H), 3865

H_3^+
Infrared spectrum of H_3^+ as an astronomical probe, 2147
First-principles calculations on the astrochemistry and spectroscopy of H_3^+, 2155

Haemoglobin
Electron paramagnetic resonance studies of hole mobility and localisation in haemoglobin, 3071

Hafnium
Auger electron, electron energy loss, secondary electron emission and secondary ion mass spectroscopic studies on the oxidation of hafnium at room temperature, 3611

Halogenated aromatic compounds
Theoretical study of the electroreduction of halogenated aromatic compounds. Part 2.—Bromine and chlorine derivatives in different organic solvents, 3931

Hartree–Fock theory
Temperature-independent paramagnetism in closed-shell oxoanions of first-row transition metals, 1915

He_2^+
Accurate adiabatic energy surfaces for the ground and first excited states of He_2^+, 645

Heat capacity
Excess heat capacities of mixtures of two alcohols, 81

Heterogeneous catalysis
Heterogeneous catalysis in solution. Part 26.—Electrochemical and kinetic studies of the reaction between *N*,*N*-dimethyl-*p*-phenylenediamine and chloropentaamminocobalt(III) at platinum, gold and silver surfaces, 229
Effect of the composition of titania–silica on its physical and catalytic properties, 757
Conversion of propanal to pentan-3-one using lanthanide oxides, 1089
Combined temperature-programmed desorption and Fourier-transform infrared spectroscopy study of CO_2, CO and H_2 interactions with model ZnO/SiO_2, Cu/SiO_2 and $Cu/ZnO/SiO_2$ methanol synthesis catalysts, 1109
In situ Fourier-transform infrared studies of CO–H_2 reactions over Ru–Rh/SiO_2 catalysts at high pressure and temperature, 1117
Partial oxidation of methane with oxygen over magnesium oxide at low temperatures, 1263
Effect of Si : Al ratio and type of binder on the catalytic properties of HZSM-5 catalysts, 1277
X-Ray absorption spectroscopic and electron paramagnetic resonance studies on the strong metal–support interaction of platinum supported on titania dispersed on silica, 2067
Acid–base properties of metallic oxide catalysts studied by conversion of propan-2-ol, 3151
Mass spectrometry and *in situ* infrared diffuse reflectance analysis of the decomposition of HCOOH adsorbed on Ln_2O_3-promoted Rh/Al_2O_3 catalysts, 3307
Surface characterization and hydrogenation properties of several nickel/α-alumina catalysts, 3507
Use of inert metal oxide antiflocculants to improve the rate of heterogeneous catalysis of redox reactions, 3849
Effect of the support on the Fischer–Tropsch synthesis with Co/Nb_2O_5 catalysts, 3975
Fourier-transform infrared study of the oxidation of ethene on MoO_3/TiO_2 catalysts doped with alkali metals, 4131
Kinetic study of the partial oxidation of methane over $Fe_2(MoO_4)_3$ catalyst, 4225

Hexacyanoferrate(III)–iodide reaction
Activation parameters and the influence of ionic strength upon the hexacyanoferrate(III)–iodide reaction in some aqueous organic media, 2011

Hexafluorobenzene
Doubly ionized states of hexafluorobenzene studied by high-resolution Auger electron and double-charge-transfer spectroscopies, 1637

High-energy electron radiolysis
Diffusion-kinetic modelling of the cooperative effect of scavengers on the scavenged yield of the hydroxyl radical, 3527

High-resolution electron microscopy
High-resolution electron microscopy of tubule-containing graphitic carbon, 1189

HNCN radical
Laser-induced fluorescence spectroscopy of the jet-cooled HNCN radical, 615

HOCl
266 nm Photolysis of HOCl and DOCl: Laser-excitation fluorescence detection of OH and OD, 1623

Hole mobility
Electron paramagnetic resonance studies of hole mobility and localisation in haemoglobin, 3071

Homoconjugation constant
Dissociation constants of substituted phenols and homoconjugation constants of the corresponding phenol–phenolate systems in acetonitrile, 119

Hugoniot trajectory
Ionic halides and oxides at high pressure: Calculated Hugoniots, isotherms and thermal pressures, 4369

Human *stratum corneum*
Electrical properties of human *stratum corneum* and transdermal drug transport, 2839

Hydrated barley protein
Proton nuclear magnetic resonance lineshapes and transverse relaxation in a hydrated barley protein, 4203

Hydration force
Nuclear magnetic resonance spectroscopy of frozen phosphatidylcholine–D_2O suspensions: A new technique for measuring hydration forces, 2583

Hydrodesulfurization
Bound water in aged molybdate/alumina hydrodesulfurisation catalysts: An inelastic neutron scattering study, 1805
Conversion of thiophene on molybdena–alumina catalysts containing Group 8–10 metals: Effect of H_2S uptake, 3137
Unsupported molybdena catalysts: Precipitation, characterization and catalytic activity, 3645

Hydrogel
Enzyme catalysis at hydrogel-modified electrodes with redox polymer mediator, 377

Hydrogen

Adsorption of hydrogen on highly dispersed MgO, 1101
Observations of molecular hydrogen in star-forming regions, 2131
Hydrogenase
Electron spin–echo spectroscopy of the [Fe]-hydrogenase from *Desulfovibrio desulfuricans*, strain ATCC 7757, 2869
Hydrogenated diamond
Fourier-transform infrared photoacoustic studies of hydrogenated diamond surfaces, 749
Hydrogen bond
Intramolecular hydrogen bond and molecular conformation. Part 1.—Effect of pressure and temperature on the infrared spectra of 4-hydroxy-4-methylpentan-2-one (diacetone alcohol) in dilute solutions, 489
Self-association of octan-1-ol in the pure liquid state and in decane solutions as observed by viscosity, self-diffusion, nuclear magnetic resonance and near-infrared spectroscopy measurements, 707
Thermodynamic study of complex formation by hydrogen bonding in halogenoalkane–oxygenated solvent mixtures: Halothane with acetone, methyl acetate, tetrahydrofuran and methyl *tert*-butyl ether, 1025
Na^+ polarizability due to collective Na^+ ion motion in disodium salts of 2,6-bis(diethylaminomethyl)phenolate di-*N*-oxides as a function of the electron density at the O atom of the phenolate group, 1211
Zero-kinetic-energy (ZEKE) photoelectron spectroscopy of the hydrogen-bonded phenol–methanol complex, 1609
Far-infrared study of heteroconjugated and homoconjugated hydrogen bonds between trimethylamine *N*-oxide and various carboxylic acids as a function of the pK_a of the acid, 1733
Orientational relaxation in hydrogen-bonded systems: Liquid water, 1975
Orientational relaxation in hydrogen-bonded systems: Aqueous solutions of electrolytes, 1985
Possible role of non-hydrogen-bonded units in the chemistry of liquid water, 2417
Hydrogen bonds between cholesterol and oxygen bases: A thermodynamic study, 2433
Lost hydrogen bonds and buried surface area: Rationalising stability in globular proteins, 2609
Identification and characterisation of the gas-phase complex $HCN\cdots Cl_2$ by rotational spectroscopy, 4157
Relation between the formation constant and the local structure of various bases and reference acids for the 1:1 hydrogen-bond complexation in aprotic solvents, 4279
Hydrogen consumption
Reversible redox behaviour between silver cations and silver metal particles in hydrated Ag-Y zeolites, 595
Hydrogen/deuterium
Diffusivity and solubility of hydrogen and deuterium in yttrium, 4375
Hydrogen fluoride
Vibrational frequency shifts in $OC\cdots HF$ and $N_2\cdots HF$, 4253
Hydrogenolysis
Role of hydrophilic interactions in sustaining preferential orientations: Calorimetric and nuclear magnetic resonance studies of ternary aqueous systems containing a destructuring agent and hydroxylated compounds at 298.15 K, 503
Reactions of hydrocarbons over Ru/SiO_2: Exchange with deuterium and the onset of hydrogenolysis, 585
Reactions of propane and of *n*-butane with hydrogen over palladium catalysts, 3129
Hydrogen peroxide
Mechanism of bleaching by peroxides. Part 1.—Kinetics of bleaching of phenolphthalein by hydrogen peroxide, 1203
Hydrolysis
Kinetic evidence for the effects of urea on the properties of aqueous micellar solutions of sodium dodecyl sulfate, 1373
Hydrophobic surface
Electrokinetics of polystyrene latices: The role of the hydrophobic surface, 521
Hydrothermal conversion
Study of the pre-crystallization stage of hydrothermally treated amorphous aluminosilicates through the composition of the aqueous phase, 171
Hydroxyapatite
Inhibition of hydroxyapatite formation in aqueous solutions by zinc and 1,2-dihydroxy-1,2-bis(dihydroxyphosphonyl)-ethane, 965
Exchange characteristics of carbonate-containing apatite for Al^{3+}, La^{3+} and Y^{3+} ions, 2095
Hydroxyl radical
Diffusion-kinetic modelling of the cooperative effect of scavengers on the scavenged yield of the hydroxyl radical, 3527
Hydroxypropyl(methyl)cellulose
Transient and steady-state rheology of silica suspensions in hydroxypropyl(methyl)cellulose solutions, 2467
Hyperfine anisotropy
Hyperfine anisotropy and mobility of organic radical cations in zeolites, 2101
Hyperfine isotope effect
Ab initio calculations on the hyperfine isotope effect between $C_{60}H$ and $C_{60}Mu$, 2957
ICl
Optical spectra of spatially oriented molecules: ICl in a strong electric field, 1539
Impedance
Coupling of ion and electron transport during impedance measurements on a conducting polymer with similar ionic and electronic conductivities, 321
Inclusion compound
Conductance study of the binding of methyl orange, *o*-methyl red and *p*-methyl red anions by α-cyclodextrin in water, 1729
Theoretical prediction of the guest periodicity of alkane/urea inclusion compounds, 2023
EXAFS spectroscopic studies of the bromine environment in the crystalline inclusion compounds formed between urea and α,ω-dibromoalkanes, 3099
(^{13}C, ^2H) Residual dipolar and indirect spin–spin coupling effects in high-resolution ^{13}C nuclear magnetic resonance spectra of solids, 3791
Indazole
Gas-phase infrared spectrum of indazole. Scaled quantum mechanical force field and complete spectrum assignment, 4005
Indene
Low-energy vibrations of indene, 4153
INDO calculation
Spectroscopic properties of a triarylpyrylium cation, 457
Inelastic neutron scattering
Bound water in aged molybdate/alumina hydrodesulfurisation catalysts: An inelastic neutron scattering study, 1805
Inelastic scattering
Inelastic F–H_2 scattering, 1475
Infrared fluorescence
Infrared fluorescence from CO_2 laser-pumped CF_2HCl: Collision dynamics of intermode energy flow, 639
Infrared laser photochemistry
Infrared laser-induced chemistry of chlorodifluoromethane–silane mixtures at two irradiating wavelengths, 3907
infrared multiphoton dissociation
Rate constants for the de-excitation of the bending vibrational levels of NCO ($\tilde{X}$) by helium, neon, argon, krypton and xenon, 405
Infrared spectroscopy
Vibrational spectrum of pyrazinecarbaldehyde, 43
Intramolecular hydrogen bond and molecular conformation. Part 1.—Effect of pressure and temperature on the infrared spectra of 4-hydroxy-4-methylpentan-2-one (diacetone alcohol) in dilute solutions, 489
Reversible redox behaviour between silver cations and silver metal particles in hydrated Ag-Y zeolites, 595
Infrared characterization of the hydrocarbon intermediates in the oxidation of toluene and xylenes over vanadia–titania catalysts, 753
Adsorption of hydrogen on highly dispersed MgO, 1101
Partial oxidation of methane with oxygen over magnesium oxide at low temperatures, 1263
Infrared spectra of aluminium carbonyl complexes in solid argon, 1291
Infrared spectrum of H_3^+ as an astronomical probe, 2147
Intensity enhancements in the IR spectra of organic radical ions. A theoretical study, 3015
Variable-temperature infrared spectroscopic study of some molybdenum bronzes: Evidence for electron–photon coupling, 3603
Characterization by infrared and nuclear magnetic resonance spectroscopies of calcined beta zeolite, 3659
Vibration–rotation spectra of the ν_1, ν_3 and ν_5 parallel bands and potential constants of $CF_3C\equiv CH$, 3675
Gas-phase infrared spectrum of indazole. Scaled quantum mechanical force field and complete spectrum assignment, 4005
Solvent sensitivity of the wavenumber characterising the carbonyl stretching vibration of *N*-cyclohexyl-2-pyrrolidinone dissolved in pure liquids and in mixtures formed by hexane and deuteriotrichloromethane at 298.2 K, 4199
Conformers, vibrational spectra and infrared-induced rotamerization of dichloroacetic acid in argon and krypton matrices, 4257
Inner-shell spectroscopy
Inner-shell spectroscopies of solid and gaseous alkylidyne tricobalt nonacarbonyl complexes, 3331
Insulin
Spectroscopic and microcalorimetric study of the interaction of *n*-alkyl sulfates with insulin in aqueous solution, 1963
Interface
Electrokinetic potential of the alkane/aqueous electrolyte interface, 527
Aqueous film drainage at the quartz/water/air interface, 817
Entry and spreading of alkane drops at the air/surfactant solution interface in relation to foam and soap film stability, 4313
Interfacial chemistry
Interfacial chemistry in the preparation of catalytic potassium-modified aluminas, 2527
Intermolecular binding
Solid-state ^{13}C and ^2H nuclear magnetic resonance studies of the benzene–hexafluorobenzene complex, 823
Internal rotation
Microwave spectrum, structure and internal rotation of the methylamine–hydrogen chloride dimer, 1173
Internal rotation in relatively complicated systems: Benzoic, nicotinic, isonicotinic and picolinic acids and their thio derivatives, 3353
Interstellar chemistry
Spiers memorial lecture: The chemistry of astronomical environments, 2111
Abundance anomalies in hot and cold molecular clouds, 2119
Free carbenes in the interstellar gas, 2125
Observations of molecular hydrogen in star-forming regions, 2131
Infrared spectrum of H_3^+ as an astronomical probe, 2147
First-principles calculations on the astrochemistry and spectroscopy of H_3^+, 2155
Calculations of interstellar radiative association rates including tunnelling: The strange case of $C_2H_2^+ + H_2$, 2175
Rate constants for chemical reactions of radicals at low temperatures, 2185
Rate coefficients for interstellar gas-phase chemistry, 2193
Experimental investigations of ion–molecule reactions relevant to interstellar chemistry, 2199
Ab initio calculations on molecules of interest to interstellar cloud chemistry, 2219
OH masers and the nature of massive

star-forming regions, 2231
Computation of inelastic rotational rates and collision cross-sections for astrophysically important systems: $H_2 + H_2O$ and the water maser, 2239
Observations of molecules in diffuse interstellar clouds, 2261
On the diffuse interstellar bands, 2269
Neutral and ionized polycyclic aromatic hydrocarbons, diffuse interstellar bands and the ultraviolet extinction curve, 2277
Laboratory study of carbon particles and clusters, 2285
New developments of the coal model of interstellar dust, 2289
Interstellar SiC grains in meteorites, 2297

Intramolecular charge separation
Photoinduced intramolecular charge separation in an anthraquinone-linked all-*cis* 5,10,15,20-*meso*-tetrakis(2-aminophenyl)porphyrin derivative studied by picosecond and nanosecond laser spectroscopy, 3243

Intramolecular hydrogen bond
X-Ray, Fourier-transform infrared, ^1H and ^{13}C nuclear magnetic resonance, and PM3 studies of $(N{-}H{\cdots}N)^+$ and $(O{-}H{\cdots}O)^-$ intramolecular hydrogen bonds in a complex of 1,8-bis(dimethylamino)naphthalene with maleic acid, 2085

Intramolecular vibrational redistribution
Large-amplitude vibrations and their effects on lowering onset of intramolecular vibrational redistribution in jet-cooled *N*-methylaniline, 2345

Ion aggregate
Anisotropic aggregation of a 1,10-phenanthroline dinuclear chromium(III) complex bridged by two L-tartrates in aqueous solution, 1773

Ion capture
Effect of anisotropy of polarizability of the linear quadrupole molecule on the rate of ion capture, 655

Ion dipole polarizability
In-framework ion dipole polarizabilities in non-porous and porous silicates and aluminosilicates, determined from Auger electron spectroscopy data, 2499

Ion exchange
Kinetics of ion exchange in a stirred-flow cell, 107
Predictive evaluation of ion-exchange selectivity on a titanium antimonate cation exchanger, 851
Predictive evaluation of ion-exchange selectivity on a titanium antimonate cation exchanger, 851
Ion exchange in zeolites. Part 2.—Hydrolysis and dissolution of zeolites NaX and NaY, 971
Ion exhange in zeolites. Part 3.—Hydrolysis and trace $^{45}Ca^{2+}$ and $^{22}Na^+$ exchanges in zeolites X and Y, 977
Ion exchange in zeolites. Part 4.—Hydrolysis and trace $^{134}Cs^+$ exchange in K- and Na-mordenite, 1877
Exchange characteristics of carbonate-containing apatite for Al^{3+}, La^{3+} and Y^{3+} ions, 2095

Ionic association
Ionic association of alkali-metal bromides in 2-methoxyethanol, 733

Ionic conductivity
Comparative electrochemical study of new poly(oxyethylene)–Li salt complexes, 355

Ionic dynamics
Ionic dynamics in the rotator phase of *n*-alkylammonium chlorides (C_6–C_{10}), studied by ^1H nuclear magnetic resonance, electrical conductivity and thermal measurements, 827

Ionic partition equilibrium
Ionic partition equilibrium in a charged membrane immersed in a mixed ionic solution, 3433

Ionic solution
Structural and dynamical aspects of aqueous ionic solutions, 2927

Ionic solvation
Thermodynamics of solvation of ions. Part 6.—The standard partial molar volumes of aqueous ions at 298.15 K, 713
Attenuated total reflection Fourier-transform infrared spectroscopic study of ion–solvent and ion–ion interactions in alkali-metal perchlorate–acetonitrile solutions, 811

Ionization energy
Electronic-state energies of the $CH_2I_2^{2+}$, CHI_3^{2+} and CI_4^{2+} dications, 2945

Ion–molecule chemistry
Spiers memorial lecture: The chemistry of astronomical environments, 2111
Free carbenes in the interstellar gas, 2125
Experimental investigations of ion–molecule reactions relevant to interstellar chemistry, 2199

Ion-pair
Ion pairing and microscopic structure of R_4NPF_6 in the binary system CD_3CN–CCl_4 studied by nuclear magnetic resonance spectroscopy, 1339
Spectroscopy and electronic structure of ion-pair states, 1885
Structures and electronic states of ion-pair complexes formed between a carbonyl compound and a sodium atom. An *ab initio* molecular orbital and MRSDCI study, 2369
Does the vapour of trimethylphosphonium bromide contain ion pairs $(CH_3)_3PH^+\cdots Br^-$? An answer from the rotational spectrum, 3319

Ion recombination
Stochastic modelling of the influence of an applied electric field on the ion recombination kinetics of multiple-ion-pair spurs in low-permittivity liquids, 3533

Ion transfer
Ion transfer facilitated by the neutral carrier *N*,*N*-dicyclohexyl-*N*′,*N*′-diisobutyl-*cis*-cyclohexane-1,2-dicarboxamide across the water/1,2-dichloroethane interface, 4307

$IrO_2 + Ta_2O_5$ film
X-Ray diffraction, transmission electron microscopy and X-ray photoelectron spectroscopic characterization of $IrO_2 + Ta_2O_5$ films, 1707

Iron(II)–diimine complex
Solvation and reactivity of iron(II)–Diimine complexes in dimethyl sulfoxide–water mixtures, 1041

Iron(III) ion spin states equilibrium
Role of the relaxation of the iron(III) ion spin states equilibrium in the kinetics of ligand binding to methaemoglobin, 3921

Iron(III) phosphate
Cation-exchange properties of iron(III) phosphate, 3843

Iron carbonyl
Infrared reflection absorption spectroscopy, X-ray photoelectron spectroscopy and temperature-programmed desorption study on the adsorption and decomposition of $Fe(CO)_5$ over silver surfaces, 4387

Iron complex
Alkali-stable iron complexes as mediators for the electrochemical reduction of dispersed organic dyestuffs, 2451

Iron–diimine–cyanide complex
Iron–diimine–cyanide complexes as probes for aqueous micellar systems, 531

Iron–sulfur cluster
Electron spin–echo spectroscopy of the [Fe]-hydrogenase from *Desulfovibrio desulfuricans*, strain ATCC 7757, 2869

γ-Irradiation
Pre-irradiation with low doses has no detectable effect on the repair of radiation-induced double strand breaks in DNA of chinese hamster V79 cells, 2923

IR spectroscopy
Protonic acid sites in stabilised Y zeolites after reduction of M^{2+} cations with hydrogen, 1833
Silylation of H-ZSM-5: An X-ray photoelectron and infrared spectroscopy study, 4231

Isomerization catalysis
Physico-chemical and catalytic properties of ytterbium introduced into Y-zeolite, 3177

Isotherm
On the flexibility of the carbon skeleton, 935
Ionic halides and oxides at high pressure: Calculated Hugoniots, isotherms and thermal pressures, 4369

Isotopic measurements
Microwave spectra, hyperfine splittings and average structures of 3,3,3-trifluoropropyne, $CF_3{\equiv}CH$ and trifluoroacetonitrile, CF_3CN, 2937

Isotopic selectivity
Isotopic selectivity in infrared multiphoton dissociation of $CF_3CH(D)BrCl$, 771

Kapton
Flexible (Kapton-based) microsensor arrays of high stability for cardiovascular applications, 361

Kerr ellipsometry
Charge-transfer complexes of discogenic molecules: A time-resolved study based on Kerr ellipsometry, 37

Ketene
Fourier-transform infrared spectroscopic studies of the adsorption of ketene on silica, 1121
Fourier-transform infrared spectroscopic study of adsorption of ketene on zinc oxide, 1127

Kinetic asymmetry
Kinetic asymmetry between crystal growth and dissolution: Step movement at low temperatures, 3579

Kinetic potential difference
How to define the potential difference driving net chemical transformation, 3681

Kinetics
Pressure and temperature dependence of the rate of reaction between CN radicals and NO over the range $99 \leqslant T/K \leqslant 450$, 1
Absolute rate data for the reactions of ground-state atomic carbon, $C[2p^2(^3P_J)]$, with alkenes investigated by time-resolved atomic resonance absorption spectroscopy in the vacuum ultraviolet, 7
Extended mechanism of excimer formation, 15
Kinetics of ion exchange in a stirred-flow cell, 107
A.c. impedance study of rate constants for two-phase electron-transfer reactions, 199
Theoretical analysis for a second-order ECE process at a rotating-disc electrode, 213
Heterogeneous catalysis in solution. Part 26.—Electrochemical and kinetic studies of the reaction between *N*,*N*-dimethyl-*p*-phenylenediamine and chloropentaamminocobalt(III) at platinum, gold and silver surfaces, 229
Rate constants for the de-excitation of the bending vibrational levels of NCO ($\tilde{X}$) by helium, neon, argon, krypton and xenon, 405
Time-resolved studies of the temperature dependence of the gas-phase reactions of methylsilylene with silane and the methylsilanes, 411
Kinetic studies and *ab initio* investigations of the reactions of atomic bromine with methylsilane and dimethylsilane, 419
Rates of reaction between the nitrate radical and some aliphatic esters, 425
Kinetics and product study of the self-reactions of allyl and allyl peroxy radicals at 296 K, 433
Reaction of methyl radicals with azoethane, 447
Kinetics and mechanism of the thermal gas-phase reaction between trifluoromethylhypofluorite, CF_3OF, and trichloroethene, 451
Mean reaction times in non-homogeneous kinetics, 471
A kinetic investigation of the reaction $Ca + O_3$ over the temperature range 213–383 K, 763
Pentacyanoferrates(II): Solvatochromism and reactivity in micelles and in reversed micelles, 783
Thermodynamic and kinetic factors in chloride ion pitting and nitrogen donor ligand inhibition of aluminium metal corrosion in aggressive acid media, 795
Inhibition of hydroxyapatite formation in aqueous solutions by zinc and 1,2-dihydroxy-1,2-bis(dihydroxyphosphonyl)-ethane, 965
Reactions of $N(2\,^2D)$ and $N(2\,^2P)$ with H_2 and D_2, 995
Dissolution of amorphous aluminosilicalite zeolite precursors in alkaline solutions. Part 1.—Kinetics of the dissolution, 1817
A new approach to the study of dissolution kinetics, 1883
Enzymatic reaction in water-in-oil microemulsions. Part 1.—Rate of hydrolysis

of a hydrophilic substrate: acetylsalicylic acid, 1993
Rate coefficients for interstellar gas-phase chemistry, 2193
Kinetic spectroscopy of pyrazolotriazole azomethine dyes, 2385
Excited-state properties and photosensitization behaviour of bis(2,4-dihydroxyphenyl) squaraine, 2397
Equilibrium and kinetic studies associated with the interaction between sodium dodecyl sulfate and polyvinylpyrrolidone in aqueous solution, 2737
Absolute rate coefficients for the reaction between nitrate radicals and some cyclic alkenes, 2977
Simple chemical clock reactions: Application to cement hydration, 3021
Oxidative dissolution of chromium(III) oxides by metaperiodate ions in perchloric acid, 3389
Kinetics of the solvolysis of a cationic and of an anionic chlorocobalt(III) complex in water–glucose mixtures: Anomalous effects on the enthalpy and entropy of activation, 3565
Alkali-metal ion catalysis in the oxidation of L-ascorbic acid by hexacyanoferrate(III) in strongly acidic media, 3571
Modelling of the kinetics of a gas–solid reaction involving a surface transient, 3629
Correlations between rate parameters and calculated molecular properties in the reactions of the nitrate radical with alkenes, 3899
Dolomite dissolution kinetics at low pH: A channel-flow study, 3947
Mechanism of bleaching by peroxides. Part 2.—Kinetics of bleaching of alizarin and crocetin by hydrogen peroxide at high pH, 4035
Investigation into the pressure dependence between 1 and 10 Torr of the reactions of NO_2 with CH_3 and CH_3O, 4163
Kinetic study of the partial oxidation of methane over $Fe_2(MoO_4)_3$ catalyst, 4225
Corrigendum to Rate constants for the reductions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 4251
First kinetic measurements on [$^2H_2$]silylene: Absolute rate constant for the reaction $SiD_2 + H_2$, 4405

Kinetics of ligand binding
Role of the relaxation of the iron(III) ion spin states equilibrium in the kinetics of ligand binding to methaemoglobin, 3921

Kinetic spectroscopy
Kinetic spectroscopy of pyrazolotriazole azomethine dyes, 2385

β-Lactoglobulin
Competitive effects in the adsorbed layer of oil-in-water emulsions stabilised by β-lactoglobulin–Tween 20 mixtures, 2755
Molecular basis of thermal aggregation of bovine β-lactoglobulin A, 3395

Langmuir–Blodgett film
Size-quantised cadmium sulfide particles in Langmuir–Blodgett films: Film thermal stability, 2031

Lanthanide oxide
Conversion of propanal to pentan-3-one using lanthanide oxides, 1089
Role of structural defects and oxygen ion migration in the catalytic activity of La_2O_3, 3833

Laser ablation
Formation and photolysis of tantalum sulfide cluster ions, 1779

Laser dye
Photophysical properties of laser dyes: Picosecond laser flash photolysis studies of Rhodamine 6G, Rhodamine B and Rhodamine 101, 4185

Laser excitation
Infrared fluorescence from CO_2 laser-pumped CF_2HCl: Collision dynamics of intermode energy flow, 639

Laser-excitation fluorescence
266 nm Photolysis of HOCl and DOCl: Laser-excitation fluorescence detection of OH and OD, 1623

Laser flash photolysis
Kinetics and product study of the self-reactions of allyl and allyl peroxy radicals at 296 K, 433
Excited-state reactions of triphenylpyrylium ion with cinnamate derivatives: Triplet-mediated isomerization and singlet-mediated dimerization, 465

Laser-induced flourescence
Pressure and temperature dependence of the rate of reaction between CN radicals and NO over the range $99 \leqslant T/K \leqslant 450$, 1
Laser-induced fluorescence spectroscopy of the jet-cooled HNCN radical, 615
Kinetics of elementary reactions at low temperatures: rate constants for the reactions of OH with HCl ($298 \geqslant T/K \geqslant 138$), CH_4 ($298 \geqslant T/K \geqslant 178$) and C_2H_6 ($298 \geqslant T/K \geqslant 138$), 631
Large-amplitude vibrations and their effects on lowering onset of intramolecular vibrational redistribution in jet-cooled *N*-methylaniline, 2345
Rate of reaction between CN radicals and vibrationally excited HCl, 2355
Investigation of dynamical processes at liquid surfaces by molecular scattering, 3877
Investigation into the pressure dependence between 1 and 10 Torr of the reactions of NO_2 with CH_3 and CH_3O, 4163
Corrigendum to Rate constants for the reductions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 4251

Laser-induced rotamerization
Conformers, vibrational spectra and laser-induced rotamerization of $CH_2ClCOOH$, 3235

Laser photolysis
Kinetics of elementary reactions at low temperatures: rate constants for the reactions of OH with HCl ($298 \geqslant T/K \geqslant 138$), CH_4 ($298 \geqslant T/K \geqslant 178$) and C_2H_6 ($298 \geqslant T/K \geqslant 138$), 631

Laser photo-predissociation spectroscopy
High-resolution electronic spectroscopy and predissociation dynamics of SiH_2^+ in high-K_a states, 177

Laser pump–probe technique
Initial and final orbital alignment probing of the fine-structure-changing collisions among the Ca $(4s)^1(4p)^1$, ^3P_J states with He: Determination of coherence and conventional cross-sections, 1401

Laser Stark spectroscopy
Molecular beam infrared–radiofrequency double-resonance spectroscopy of [^{35}Cl]chloromethane: Hyperfine structure of the ν_6 vibrational state, 3857

Laser vaporization
Energetics for carbon clusters produced directly by laser vaporization of graphite: Dependence on laser power and wavelength, 1667

Lattice protonation
Fourier-transform infrared study of the protonation of the zeolitic lattice. Influence of silicon : aluminium ratio and structure, 1271

Laue diffraction
High-resolution crystallographic studies of native concanavalin A using rapid Laue data collection methods and the introduction of a monochromatic large-angle oscillation technique (LOT), 2667

Lead(II) soaps
Multinuclear nuclear magnetic resonance studies of lead(II) soaps. Part 3.—Studies on the liquid phase with reference to the behaviour of the corresponding acids, 3117

Lead deposition
Spatial distributions and saturation number densities of lead nuclei deposited on vitreous carbon electrodes, 255

Li_3
Virial theorem decomposition of potential-energy surfaces. Analysis of the double many-body expansion ground-state surface of Li_3, 3885

Linear dichroism
Orientation of large DNA during free solution electrophoresis studied by linear dichroism, 2791

Linear quadrupole molecule
Effect of anisotropy of polarizability of the linear quadrupole molecule on the rate of ion capture, 655

Line-of-centres model
Orientation dependence of the $F + H_2$ and $H + F_2$ reactions using the line-of-centres model with angle-dependent collision diameters and barrier heights, 1481

^{7}Li NMR
Nuclear spin relaxation of ^{7}Li in aqueous solutions of LiCl, 4249

Lipid charge
Effect of lipid charge and solution composition on the permeability of phospholid–gramicidin monolayers to Tl^I, 2799

Lipid-coated electrodes
Voltammetry of Tl^I, Cd^{II}, Cu^{II}, Pb^{II} and Eu^{III} at phosphatidylserine-coated mercury electrodes, 3081

Lipopeptides
Aggregation of amphiphilic compounds in dimethyl sulfoxide: Example of non-ionic alkyl–fluoroalkyl lipopeptides, 927

Liposome
^{7}Li and ^{23}Na Nuclear magnetic resonance studies of transport and diffusion in liposomes. Comparison of transport rate constants estimated using pulsed field gradient and magnetization-transfer procedures, 2807

Liquid crystal
Anisotropic aggregation of a 1,10-phenanthroline dinuclear chromium(III) complex bridged by two L-tartrates in aqueous solution, 1773
Monte Carlo investigations of a Gay–Berne liquid crystal, 4069

Liquid/liquid interface
Ion transfer facilitated by the neutral carrier *N*,*N*-dicyclohexyl-*N*′,*N*′-diisobutyl-*cis*-cyclohexane-1,2-dicarboxamide across the water/1,2-dichloroethane interface, 4307

Liquid-phase reaction dynamics
Comparison of several frequency-dependent friction models for the descsription of liquid-phase reaction dynamics, 1677

Liquid–vapour density
'Liquid–vapour' density profiles for fluids in pores from density functional theory, 789

Lithium beam
Alignment and orientation in $Li(2p_m)$—H^+ charge-transfer collisions, 1573

Lithium pentafluoropropionate
Corrigendum to Conductometric identification of triple-ion and quadrupole formation by the coordination forces from lithium trifluoroacetate and lithium pentafluoropropionate in protophobic aprotic solvents, 3515

Lithium trifluoroacetate
Corrigendum to Conductometric identification of triple-ion and quadrupole formation by the coordination forces from lithium trifluoroacetate and lithium pentafluoropropionate in protophobic aprotic solvents, 3515

Local density functional
Predicting X-ray diffraction intensity distributions for one-dimensional inclusion compounds *via* local density functional calculations, 2017

Locking approximation
Comparison equation approach to the locking of electronic angular momentum to the molecular axis in atomic collisions, 1567

Longitudinal relaxation times
Multinuclear nuclear magnetic resonance studies of lead(II) soaps. Part 3.—Studies on the liquid phase with reference to the behaviour of the corresponding acids, 3117

Low-field microwave absorption
Investigation of single, sharp line signals in modulated microwave absorption spectra at low magnetic fields in $YBa_2Cu_3O_{7-\delta}$ single crystal, 2063

Low-temperature kinetics
Rate constants for chemical reactions of radicals at low temperatures, 2185

Lubricant
Variable-pressure infrared studies on the molecular flexibility of the model lubricant 2-ethylhexyl benzoate (EHB), 881

Luminescence

Effect of the size of the chelate ring on the stability of cyclic exciplexes between the cadmium($5\ ^3P_1$) atom and diamines, 703
Intermolecular energy transfer between phenanthrene and lanthanide ions in aqueous micellar solution, 873
Synthesis and characterisation of a new DNA-binding bifunctional ruthenium(II) complex, 3261
2,6-Lutidine synthesis
One-step 2,6-lutidine synthesis from acetone, ammonia and methanol. Temperature-programmed desorption–reaction (TPDR)–mass spectrometry (MS) study, 4381
Lysozyme
Interaction of the tetramethylammonium ion with the lysozyme molecule, studied using neutron diffraction, 2701
Macroion
Attraction among macroions in electrolytes: A semianalytical demonstration, 739
Magic angle spinning nuclear magnetic resonance spectroscopy
Limitations of resolution in the ^1H magic angle spinning nuclear magnetic resonance spectroscopy of zeolites. Further results, 165
Chrystallization of zeolite ZSM-39 studied by ^{13}C and ^{29}Si magic-angle spinning nuclear magnetic resonance spectroscopy, 1839
^{31}P Magic-angle spinning nuclear magnetic resonance spectroscopy of calcium phosphate glasses, 3297
Magnesia
Problems involved in the reducibility of the NiO–MgO system as evidenced by X-ray diffraction, electron paramagnetic resonance, electron spectroscopy for chemical analysis and adsorption techniques, 943
Magnesium aluminophosphate
Synthesis and properties of MgAPO-5, 3143
Magnesium hydroxide
Infrared and quantitative adsorption study of coordinatively unsaturated cations on magnesium hydroxide, 579
Magnesium oxide
Adsorption of hydrogen on highly dispersed MgO, 1101
Electron paramagnetic resonance investigation of the interaction of CO with the surface of electron-rich magnesium oxide: Evidence for the CO^- radical anion, 3715
Magnetic exchange interaction
Effects of the modulation of magnetic exchange interactions on the electron paramagnetic resonance spectra of some carboxylate-bridged oxovanadium(IV) dimers, 3705
Magnetite
Effect of anionic polyelectrolytes on the dissolution of magnetite in thioglycolic acid solutions, 1049
Malate dehydrogenase
Biophysical study of halophilic malate dehydrogenase in solution: Revised subunit structure and solvent interactions of native and recombinant enzyme, 2659
Manganese
Sterically controlled complexation of manganese(II) and cobalt(II) with chloride ions in *N*,*N*-dimethylacetamide, 3055
D-Mannitol
Heat capacities of D-mannitol and D-sorbitol in water, dimethyl sulfoxide and formamide, 1351
Maser
OH masers and the nature of massive star-forming regions, 2231
Mass spectrometry
Reactions of hydrocarbons over Ru/SiO_2: Exchange with deuterium and the onset of hydrogenolysis, 585
Mechanistic studies of the reactions of 3,3-dimethylbut-1-ene with deuterium over supported-metal catalysts, 2519
Mass spectrometry and *in situ* infrared diffuse reflectance analysis of the decomposition of HCOOH adsorbed on Ln_2O_3-promoted Rh/Al_2O_3 catalysts, 3307
Matrix isolation
Photochemistry on surfaces: Solvent–matrix effect on the swelling of cellulose. An emission and absorption study of adsorbed auramine O, 1937
Conformers, vibrational spectra and infrared-induced rotamerization of dichloroacetic acid in argon and krypton matrices, 4257
Matrix-isolation spectroscopy
Infrared spectra of aluminium carbonyl complexes in solid argon, 1291
Mean reaction time
Mean reaction times in non-homogeneous kinetics, 471
Mechanism
Kinetics and mechanism of the thermal gas-phase reaction between trifluoromethylhypofluorite, CF_3OF, and trichloroethene, 451
Melting
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 2.—Melting behaviour and thermodynamic properties of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 or α-SiC powder, 3811
Membrane
Electrical migration in convective electrophoresis: Modelling and membrane separation of bovum serum albumin (BSA) and cytochrome *c*, 99
Photoexcitation energy transfer of binary and ternary systems mediated by a bilayer membrane containing biphenyl moiety, 1365
Can membrane transport parameters that vary with time be derived from electrochemical measurements in an external electrolyte?, 2783
Global target analysis of fluorescence depolarization in model membranes using exponential splines, 2815
Measurements of transport rates of C_4 hydrocarbons across a single-crystal silicalite membrane, 3161
Steady states in membrane distillation: Influence of membrane wetting, 4333
Sorption of organic solvents into dense silicone membranes. Part 1.—Validity and limitations of Flory–Huggins and related theories, 4339
Sorption of organic solvents into dense silicone membranes. Part 2.—Development of a new approach based on a clustering hypothesis for associated solvents, 4347
Membrane-active drug
Effects of external ions on the energetics of proton transfer in hydrogen-bonded systems modelling a membrane-active drug–receptor interaction, 1321
Membrane–buffer partition coefficient
Membrane–buffer partition coefficients of semiquinones using the spin-broadening technique, 3773
Membrane transport
Ionic partition equilibrium in a charged membrane immersed in a mixed ionic solution, 3433
Merocyanine dye
Solvatochromism of a typical merocyanine dye. Further investigations, 55
3d metal complex
Microwave dielectric loss in polycrystalline 3d metal complexes, 3959
Metal complex ion
Molar volumes of metal complex ions in water. Part 1.—Hexaammine and trisdiamine complexes, 3039
Metal ion
Voltammetry of Tl^I, Cd^{II}, Cu^{II}, Pb^{II} and Eu^{III} at phosphatidylserine-coated mercury electrodes, 3081
Metal oxide surface
Electrochemical effects on friction between metal oxide surfaces in aqueous solutions, 267
Meteorite
Interstellar SiC grains in meteorites, 2297
Methaemoglobin
Temperature-jump method for determining the equilibrium constant of the iron spin states in human methaemoglobin A, 1361
Role of the relaxation of the iron(III) ion spin states equilibrium in the kinetics of ligand binding to methaemoglobin, 3921
Methanol synthesis catalyst
Combined temperature-programmed desorption and Fourier-transform infrared spectroscopy study of CO_2, CO and H_2 interactions with model ZnO/SiO_2, Cu/SiO_2 and $Cu/ZnO/SiO_2$ methanol synthesis catalysts, 1109
Methylamine–hydrogen chloride dimer
Microwave spectrum, structure and internal rotation of the methylamine–hydrogen chloride dimer, 1173
***N*-Methylaniline**
Large-amplitude vibrations and their effects on lowering onset of intramolecular vibrational redistribution in jet-cooled *N*-methylaniline, 2345
Methylchlorobenzene
Calculation of partition constants for a series of organic compounds *via* a novel solubility-parameter-based method, 3751
Methylcyclopentane
Reactivation mechanisms of palladium in methylcyclopentane conversion, 1799
Methyl methacrylate
Dielectric spectroscopy of the polymerization process of methyl methacrylate, 3477
2-Methylpropan-2-ol–alcohol mixture
Dissociation constants and preferential solvation in some 2-methylpropan-2-ol–alcohol mixtures, 1723
Methyl radical
Reaction of methyl radicals with azoethane, 447
Methylsilylene
Time-resolved studies of the temperature dependence of the gas-phase reactions of methylsilylene with silane and the methylsilanes, 411
MFI framework
Disruption of the MFI framework by the incorporation of gallium, 1131
Micelle
block-Copoly(oxyethylene/oxybutylene/oxyethylene), $E_{40}B_{15}E_{40}$, in aqueous solution: Micellisation, gelation and drug release, 539
Pentacyanoferrates(II): Solvatochromism and reactivity in micelles and in reversed micelles, 783
Intermolecular energy transfer between phenanthrene and lanthanide ions in aqueous micellar solution, 873
Micellisation of diblock copoly(oxyethylene/oxybutylene) in aqueous solution, 1235
Kinetic evidence for the effects of urea on the properties of aqueous micellar solutions of sodium dodecyl sulfate, 1373
Electron paramagnetic resonance, electron spin echo modulation and electron nuclear double resonance studies on the photoionization of *N*-alkylphenothiazines in cetyltrimethylammonium bromide–alcohol reverse micelles. Effects of alkyl chain length of alkylphenothiazines, reverse micellar water pool size and cosurfactant alcohol, 1377
Relative stability of micellar forms, 1749
Time-resolved resonance Raman spectroscopy of carotenoids in Triton X-100 micellar solution, 1753
Non-spherical micelles in the sodium dodecylsulfate–brine system. A fluorescence quenching and nuclear magnetic resonance study, 1759
Fluorescence quenching of chlorophyll-*a* in non-ionic micelles. Effect of micellar and quencher concentrations on the static and dynamic quenching parameters, 1925
Thermodynamics of micelle formation of some alkylpyridinium bromides, 2445
Characterisation of Boc-Lys(Z)-Tyr-$NHNH_2$ dipeptide. Part 1.—Physico-chemical studies on the micelle formation of a dipeptide in the absence and presence of ionic surfactants, 3075
Tracer diffusion of ionic micelles: Effects of size and interactions, 3459
Thermodynamics of micellization of some decyl poly(oxyethylene glycol) ethers in aqueous urea solutions, 3465
^1H Nuclear magnetic relaxation study of the phase structure of polystyrene-*block*-poly(ethylene/propylene) copolymer micelles, 3471
Electron paramagnetic resonance and proton

matrix electron nuclear double resonance studies of *N,N,N',N'*-tetramethylbenzidine photoionization in sodium dodecyl sulfate micelles: Structural effects of added alcohols, 4085
Micelle formation by anionic and cationic surfactants in binary aqueous solvents, 4323
Microbial adhesion
Physico-chemical model of microbial adhesion, 2913
Microcalorimetry
Spectroscopic and microcalorimetric study of the interaction of *n*-alkyl sulfates with insulin in aqueous solution, 1963
Microcalorimetry of enzyme–substrate binding: Yeast phosphoglycerate kinase, 2693
Role of functional-group position in determining the interaction between structure-maker and structure-breaker solutes. A microcalorimetric study of the interactions in aqueous solutions between positional isomers of alkan-*m*-ols and urea or biuret, 3061
Microemulsion
Enzymatic reaction in water-in-oil microemulsions. Part 1.—Rate of hydrolysis of a hydrophilic substrate: acetylsalicylic acid, 1993
Structure and dynamics of microemulsions. Part 1.—Effect of additives on percolation of conductance and energetics of clustering in water–AOT–heptane microemulsions, 3277
Microstructure of the CTAB–butanol–octane–water microemulsion system: Effect of dissolved salts, 3585
Micropore
First low-temperature ^{15}N nuclear magnetic resonance study of nitrogen physisorption/condensation in microporous solids, 833
Corrigendum to Transport of an adsorbing vapour in a model silica system, 1151
Primary and secondary filling of micropores in active carbons, 2055
Microrheology
Problem of measuring steric interaction forces between surfaces bearing adsorbed layers of macromolecules in good solvents, 4059
Microsensor array
Flexible (Kapton-based) microsensor arrays of high stability for cardiovascular applications, 361
Microwave conductivity
Microwave dielectric loss in polycrystalline 3d metal complexes, 3959
Microwave spectroscopy
Microwave electronic spectroscopy, electric field dissociation and photofragmentation of the H_2^+ ion, 603
Microwave spectrum, structure and internal rotation of the methylamine–hydrogen chloride dimer, 1173
Planarity and low-energy vibrations of catecholborane: A microwave spectroscopic study, 1631
^{14}N quadrupole coupling constants and ^{14}N and ^{19}F spin–rotation coupling constants of nitrosyl fluoride, FNO, and nitryl fluoride, FNO_2, 1899
Investigation of single, sharp line signals in modulated microwave absorption spectra at low magnetic fields in $YBa_2Cu_3O_{7-\delta}$ single crystal, 2063
Microwave spectra, hyperfine splittings and average structures of 3,3,3-trifluoropropyne, $CF_3{\equiv}CH$ and trifluoroacetonitrile, CF_3CN, 2937
Low-energy vibrations of indene, 4153
Identification and characterisation of the gas-phase complex $HCN\cdots Cl_2$ by rotational spectroscopy, 4157
Millimetre-wave spectroscopy
Rotational spectra of *tert*-butyl bromide and iodide measured in the millimetre-wave region and by Fourier-transform techniques, 397
MNDO calculation
X-Ray, Fourier-transform infrared, ^1H and ^{13}C nuclear magnetic resonance, and PM3 studies of $(N{-}H\cdots N)^+$ and $(O{-}H\cdots O)^-$ intramolecular hydrogen bonds in a complex of 1,8-bis(dimethylamino)naphthalene with maleic acid, 2035
Internal rotation in relatively complicated systems: Benzoic, nicotinic, isonicotinic and picolinic acids and their thio derivatives, 3353
Molecular abundance
Abundance anomalies in hot and cold molecular clouds, 2119
Molecular beam
Magnetically selected beams of atomic chlorine: Measurement of long-range features of the chlorine–hydrogen and chlorine–methane potential-energy surfaces, 1467
Application of the thermal conduction model to rotational relaxation in molecular beams, 1903
Molecular beam infrared–radiofrequency double-resonance spectroscopy of [^{35}Cl]chloromethane: Hyperfine structure of the ν_6 vibrational state, 3857
Molecular cloud
Abundance anomalies in hot and cold molecular clouds, 2119
Molecular-cluster calculation
$Zn_4O(O_2CNEt_2)_6$: A further molecular model of ZnO, 4363
Molecular dissociation
Microwave electronic spectroscopy, electric field dissociation and photofragmentation of the H_2^+ ion, 603
Molecular dynamics
Orientational relaxation in hydrogen-bonded systems: Liquid water, 1975
Orientational relaxation in hydrogen-bonded systems: Aqueous solutions of electrolytes, 1985
Conformation and flexibility of oligonucleotides containing O^6-methylguanine: A molecular dynamics study, 2637
Molecular dynamics simulation of competitive adsorption of spherical particles of different sizes, 3453
Surface models for γ-Al_2O_3 from molecular dynamics simulations, 3623
Molecular mechanics
Experimental and computer modelling studies of carbon-supported metal complexes. Part 2.—Molecular mechanics study of the adsorption of tetraaza[14]annulenes and their nickel(II) complexes by a carbon surface, 3963
Molecular modelling
Factors involved in guanine/cytosine (G/C) selectivity of DNA-binding drugs: A molecular modelling study of ligand interactions with a *tyr*T DNA sequence, 2651
$Zn_4O(O_2CNEt_2)_6$: A further molecular model of ZnO, 4363
Molecular orbital calculation
Spectroscopic properties of a triarylpyrylium cation, 457
Investigation of the electronic spectra of furfuryl- and 2-thienyl-imino derivatives of some heterocycles: Molecular orbital treatment, 671
Structures and electronic states of ion-pair complexes formed between a carbonyl compound and a sodium atom. An *ab initio* molecular orbital and MRSDCI study, 2369
Intensity enhancements in the IR spectra of organic radical ions. A theoretical study, 3015
Molecular organisation
On the molecular organisation within the nematic phase of liquid crystal dimers, 3289
Molecular reorientation
Photophysics, molecular reorientation in solution and X-ray structure of a new fluorescent probe, 1,7-diazaperylene, 49
Molecular rotation
Rotation about the C—N bond in formamide: An *ab initio* molecular orbital study of structure and energetics in the gas phase and in solution, 2631
Molecular scattering
Investigation of dynamical processes at liquid surfaces by molecular scattering, 3877
Molecular sieve
Further studies on aluminophosphate molecular sieves. Part 1.—$AlPO_4$-H2: A hydrated aluminophosphate molecular sieve, 951
Further studies on aluminophosphate molecular sieves. Part 2.—VPI-5 related aluminophosphate materials, 957
Solid-state transformation of SAPO-37 molecular sieve above 1100 K, 1823
Synthesis and properties of MgAPO-5, 3143
Anionic coordination involvement in solid-state ion-exchanged CuH-SAPO-*n* (n = 5, 11 and 34) molecular sieves, 4137
Synthesis, characterization, thermal stability, acidity and catalytic properties of large-pore MAPO-46, 4141
Molecular simulation
Structural effect on molecular simulations of tight-pore systems, 1683
Molecular structure
Theoretical investigation of the structure and spectra of donor–acceptor azobenzenes, 1671
Structure and acidity of carbamic acid, and its thio, dithio and sila derivatives, 2375
Molecular transport
Corrigendum to Transport of an adsorbing vapour in a model silica system, 1151
Molecular vibration
Vibrational frequency shifts in $OC\cdots HF$ and $N_2\cdots HF$, 4253
Molten salt
Dynamics of room-temperature melts: Nuclear magnetic resonance measurements of dialkylimidazolium halogenoaluminates, 3591
Molybdate/alumina
Bound water in aged molybdate/alumina hydrodesulfurisation catalysts: An inelastic neutron scattering study, 1805
Molybdena
Conversion of thiophene on molybdena–alumina catalysts containing Group 8–10 metals: Effect of H_2S uptake, 3137
Unsupported molybdena catalysts: Precipitation, characterization and catalytic activity, 3645
Molybdenum bronze
Variable-temperature infrared spectroscopic study of some molybdenum bronzes: Evidence for electron–photon coupling, 3603
Molybdenum–titania
Surface structure and reactivity of molybdena–titania catalysts prepared by different methods, 1071
Monoglyceride/water system
Phase behaviour of monoglyceride/water systems, 2823
Monosaccharide
Liquid-phase adsorption of monosaccharide–water mixtures on X and Y zeolites, 1871
Monte Carlo calculation
Effects of long-range forces on oxygen transport in yttria-doped ceria: Simulation and theory, 3123
Monte Carlo calculation of rotational relaxation in small molecules, 3517
Stochastic modelling of the influence of an applied electric field on the ion recombination kinetics of multiple-ion-pair spurs in low-permittivity liquids, 3533
Computer simulation of the adsorption of a fluid mixture in zeolite Y, 3619
Monte Carlo investigations of a Gay–Berne liquid crystal, 4069
Montmorillonite
Surface properties and porosities of silica and acid-treated montmorillonite catalyst supports: Influence on activities of supported $ZnCl_2$ alkylation catalysts, 1387
MoO_3/TiO_2 catalyst
Fourier-transform infrared study of the oxidation of ethene on MoO_3/TiO_2 catalysts doped with alkali metals, 4131
Mordenite
Reactivation mechanisms of palladium in methylcyclopentane conversion, 1799
Morphology
Morphology control in electrochemically grown conducting polymer films. Part 2.—Effects of cathodic bias on anodically grown films studied by spectroscopic ellipsometry and quartz-crystal microbalance, 287

Influence of low-molecular-weight and macromolecular organic additives on the morphology of calcium carbonate, 2891

Mössbauer spectroscopy
Reduction of supported iron oxide studied by temperature-programmed reduction combined with Mössbauer spectroscopy and X-ray diffraction, 1079

MRSDCI study
Structures and electronic states of ion-pair complexes formed between a carbonyl compound and a sodium atom. An *ab initio* molecular orbital and MRSDCI study, 2369

MSXα calculations
Quasi-relativistic MSXα calculations of a_{1g} potential-energy curves for MoF_6, WF_6 and UF_6, 25

Multiphoton dissociation
Isotopic selectivity in infrared multiphoton dissociation of $CF_3CH(D)BrCl$, 771

Multiphoton ionisation spectroscopy
Multiphoton ionisation spectroscopy of free radical species, 1153

Multiple-ion-pair spur
Stochastic modelling of the influence of an applied electric field on the ion recombination kinetics of multiple-ion-pair spurs in low-permittivity liquids, 3533

Multiple Rehm–Weller plot
Non-appearance of multiple Rehm–Weller plots in the case of charge shift ($A^{**} + D \rightarrow A^{-} + D^{+}$) fluorescence quenching, 4267

Muon spin resonance
Ab initio calculations on the hyperfine isotope effect between $C_{60}H$ and $C_{60}Mu$, 2957

Muon spin rotation
First observation of muoxyisopropyl radicals in a zeolite: Me_2COMu in NaX, 1283

Muoxyisopropyl radical
First observation of muoxyisopropyl radicals in a zeolite: Me_2COMu in NaX, 1283

Muscle
Muscle thin-filament structure and regulation. Actin sub-domain movements and the tropomyosin shift modelled from low-angle X-ray diffraction, 2717

Mutual-diffusion coefficient
Corrigendum to Diffusion of pseudo-planar molecules: An experimental evaluation of the molecular effects on diffusion, 867

NCO radical
Rate constants for the de-excitation of the bending vibrational levels of NCO ($\tilde{X}$) by helium, neon, argon, krypton and xenon, 405

Nematic liquid crystal
On the molecular organisation within the nematic phase of liquid crystal dimers, 3289
Deuterium nuclear magnetic resonance study of the orientational order in the nematic phase of 4-*n*-pentyloxy-4′-cyanobiphenyl. Tests of the Emsley–Luckhurst–Stockley theory and of the Haller extrapolation, 3783

Neoceramic coating
Reaction of NH_3 with trichlorosilylated silica gel: A study of the reaction mechanism as a function of temperature, 2509

Network formation
Functionality dependence of the distribution of cyclic species in network formation, 4181

Neutron capture
Reactions of recoil bromine species produced by neutron capture in 1,4-dibromobenzene–benzene mixtures, 3257

Neutron diffraction
Interaction of the tetramethylammonium ion with the lysozyme molecule, studied using neutron diffraction, 2701
Structural and dynamical aspects of aqueous ionic solutions, 2927

Neutron quasielastic scattering
Structural and dynamical aspects of aqueous ionic solutions, 2927

Nickel(II)–murexide system
Thermodynamics of coupled reactions by the analysis of chemical relaxation signals: The nickel(II)–murexide system, 719

Nickel/catalist
Influence of the reduction temperature on the properties of silica-supported nickel catalysts, 3313
Surface characterization and hydrogenation properties of several nickel/α-alumina catalysts, 3507
Influence of preparation method on the characteristics of nickel/sepiolite catalysts, 3651

Nickel chloride
Solubility of nickel chloride in molten sodium tetrachloroaluminate saturated with sodium chloride over the temperature range 200–400 °C, 3817

Nickel oxide
Problems involved in the reducibility of the NiO–MgO system as evidenced by X-ray diffraction, electron paramagnetic resonance, electron spectroscopy for chemical analysis and adsorption techniques, 943

Nickel silicate
Catalytical conversion of silicon tetrachloride to trichlorosilane. Characterization of the nickel silicalite catalyst by ferromagnetic resonance spectroscopy, 1085

Nickel surface
Effect of vibrational interaction on the rate of dissociation of adsorbed molecules: Ethene on a nickel surface, 2049

Niobium oxide
Stability and surface acidity of niobium(v) oxide grafted on a silica gel surface, 1057

Nitrate radical
Rates of reaction between the nitrate radical and some aliphatic esters, 425
Absolute rate coefficients for the reaction between nitrate radicals and some cyclic alkenes, 2977
Correlations between rate parameters and calculated molecular properties in the reactions of the nitrate radical with alkenes, 3899

Nitrite anion
Theoretical studies of several electronic states of the NO_2^- anion, 991

Nitrogen
First low-temperature ^{15}N nuclear magnetic resonance study of nitrogen physisorption/condensation in microporous solids, 833

Nitrosyl fluoride
^{14}N quadrupole coupling constants and ^{14}N and ^{19}F spin–rotation coupling constants of nitrosyl fluoride, FNO, and nitryl fluoride, FNO_2, 1899

Nitryl fluoride
^{14}N quadrupole coupling constants and ^{14}N and ^{19}F spin–rotation coupling constants of nitrosyl fluoride, FNO, and nitryl fluoride, FNO_2, 1899

Ni/WO_3–Al_2O_3
Temperature-programmed reduction and oxidation of nickel supported on WO–Al_2O_3 composite oxides, 2075

***N*-Octanoyl-L-glutamic acid**
Infrared evidence for the α-helical-type structure of very simple *N*-octanoyl-L-glutamic acid oligomers (residue number, $N = 1$–4) and for the α-CO_2^- group effect on their α → β-like transition, 2743

Non-aqueous sol
Chronoamperometric mobilities in the electrodynamics of a non-aqueous sol: Depletion, turbulence and electron transfer in sol electrodeposition, 3091

Non-homogeneous kinetics
Mean reaction times in non-homogeneous kinetics, 471

Non-ionic surfactant
Raman spectroscopic study of the conformational behaviour of the polymorphic non-ionic surfactant α-hexadecyl-ω-hydroxytris(oxyethylene) ($C_{16}E_3$), 4079

Non-isothermal dissolution
Non-isothermal dissolution of a solid particle in liquid, 1689

Non-linear reaction
Simple chemical clock reactions: Application to cement hydration, 3021

Norbornene
Model calculations of chemical interactions. Part 5.—Diastereofacial selectivity in 1,3-dipolar cycloaddition of formonitrile oxide to norbornene and *cis*-3,4-dichlorocyclobutene, 29

Nuclear hyperfine structure
Observation and analysis of rotational and nuclear hyperfine structure in bands of the red system of copper dichloride, 3205

^1H and ^{19}F nuclear magnetic relaxation
^1H and ^{19}F nuclear magnetic relaxation study of the dynamics of the hydrogen difluoride ion, FHF^-, in the α- and β-phases of caesium hydrogen difluoride, 693

Nuclear magnetic resonance
Role of hydrophilic interactions in sustaining preferential orientations: Calorimetric and nuclear magnetic resonance studies of ternary aqueous systems containing a destructuring agent and hydroxylated compounds at 298.15 K, 503
Ionic dynamics in the rotator phase of *n*-alkylammonium chlorides (C_6–C_{10}), studied by ^1H nuclear magnetic resonance, electrical conductivity and thermal measurements, 827
First low-temperature ^{15}N nuclear magnetic resonance study of nitrogen physisorption/condensation in microporous solids, 833
Further studies on aluminophosphate molecular sieves. Part 1.—$AlPO_4$-H2: A hydrated aluminophosphate molecular sieve, 951
Further studies on aluminophosphate molecular sieves. Part 2.—VPI-5 related aluminophosphate materials, 957
Substituent effects and chiral discrimination in the complexation of benzoic, 4-methylbenzoic and (*RS*)-2-phenylpropanoic acids and their conjugate bases by β-cyclodextrin and 6^A-amino-6^A-deoxy-β-cyclodextrin in aqueous solution: potentiometric titration and ^1H nuclear magnetic resonance spectroscopic study, 1035
Nuclear magnetic resonance study of self-association of small hydrophobic solutes in water: Salt effects and the lyotropic series, 1215
Ion pairing and microscopic structure of R_4NPF_6 in the binary system CD_3CN–CCl_4 studied by nuclear magnetic resonance spectroscopy, 1339
Non-spherical micelles in the sodium dodecylsulfate–brine system. A fluorescence quenching and nuclear magnetic resonance study, 1759
Anisotropic aggregation of a 1,10-phenanthroline dinuclear chromium(III) complex bridged by two L-tartrates in aqueous solution, 1773
Nature of interactions between phosphines and HO acids in aprotic solvents: Nuclear magnetic resonance low-temperature studies, 2463
Effect of calcination on titanium phosphate produced by H_3PO_4 treatment of anatase, 2515
Mechanistic studies of the reactions of 3,3-dimethylbut-1-ene with deuterium over supported-metal catalysts, 2519
Nuclear magnetic resonance spectroscopy of frozen phosphatidylcholine–D_2O suspensions: A new technique for measuring hydration forces, 2583
^7Li and ^{23}Na Nuclear magnetic resonance studies of transport and diffusion in liposomes. Comparison of transport rate constants estimated using pulsed field gradient and magnetization-transfer procedures, 2807
Phase behaviour of monoglyceride/water systems, 2823
Multinuclear nuclear magnetic resonance studies of lead(II) soaps. Part 3.—Studies on the liquid phase with reference to the behaviour of the corresponding acids, 3117
Synthesis and properties of MgAPO-5, 3143
On the molecular organisation within the nematic phase of liquid crystal dimers, 3289
Influence of small amounts of tungsten on the physico-chemical and catalytic properties of $PMO_{11-x}W_xVO_{40}^{4-}$ heteropolyanions, 3301
^1H Nuclear magnetic relaxation study of the phase structure of polystyrene-*block*-poly(ethylene/propylene) copolymer micelles, 3471
Dynamics of room-temperature melts: Nuclear magnetic resonance measurements of

dialkylimidazolium halogenoaluminates, 3591
Characterization by infrared and nuclear magnetic resonance spectroscopies of calcined beta zeolite, 3659
Deuterium nuclear magnetic resonance study of the orientational order in the nematic phase of 4-*n*-pentyloxy-4′-cyanobiphenyl. Tests of the Emsley–Luckhurst–Stockley theory and of the Haller extrapolation, 3783
(^{13}C, ^{2}H) Residual dipolar and indirect spin–spin coupling effects in high-resolution ^{13}C nuclear magnetic resonance spectra of solids, 3791
Dynamic properties of *p*-diiodobenzene investigated by solid-state ^{2}H and ^{13}C nuclear magnetic resonance spectroscopy, 3797
Proton spin relaxation, internal motion and structure in solid 1,2,4,5,-tetraisopropylbenzene, 3801
^{129}Xe Nuclear magnetic resonance study of faujasite zeolites of varying aluminium content, 3841
Nuclear magnetic resonance studies on the protonation equilibria of oxoanions in polysaccharide gels as models for biological media, 3925
Nuclear magnetic resonance relaxation, permittivity, viscosity and ultrasonic velocity measurements in binary mixtures of methanol and tetrahydrofuran, 3955
Proton nuclear magnetic resonance lineshapes and transverse relaxation in a hydrated barley protein, 4203
^{129}Xe Nuclear magnetic resonance studies of the porous structure of silica gels, 4239
Nuclear magnetic resonance studies of the synthesis of silicalite by the 'Fluoride Method', 4245
Comparative electron-transfer quenching rates of 9,10-dicyanoanthracene by various donors in solvents of different polarities, 4271
Accurate determination of small nuclear magnetic resonance coupling constants from decoupling experiments, 4275
Accurate determination of small nuclear magnetic resonance coupling constants from decoupling experiments, 4275

Nuclear motion
The coupling of nuclear and electronic motions in molecules, 2321

Nuclear quadrupole resonance
Temperature dependence of the effect of deuteriation on the chlorine-35 quadrupole resonance frequency in an $Mg(H_2O)_6SnCl_6$ crystal, 3359

Nuclear spin relaxation
Nuclear spin relaxation of ^{7}Li in aqueous solutions of LiCl, 4249

Nucleation
Spatial distributions and saturation number densities of lead nuclei deposited on vitreous carbon electrodes, 255
Study of the anodic oxidation of stainless steel alloys, and their constituent elements, in acidic electrolytes, 547

Oil-in-water emulsion
Competitive effects in the adsorbed layer of oil-in-water emulsions stabilised by *β*-lactoglobulin–Tween 20 mixtures, 2755
Influence of electrostatic interactions on *β*-casein layers adsorbed on polystyrene latices, 3419

Oligonucleotide
Conformation and flexibility of oligonucleotides containing O^6-methylguanine: A molecular dynamics study, 2637

One-dimensional inclusion compound
Predicting X-ray diffraction intensity distributions for one-dimensional inclusion compounds *via* local density functional calculations, 2017

Optical absorption spectroscopy
Pulse radiolysis study on radical cations of alkyl bromides in aqueous solutions, 477

Optical spectroscopy
Optical spectra of spatially oriented molecules: ICl in a strong electric field, 1539

Orbital alignment
Initial and final orbital alignment probing of the fine-structure-changing collisions among the Ca $(4s)^1(4p)^1$, ^3P_J states with He: Determination of coherence and conventional cross-sections, 1401

Organic radical ions
Intensity enhancements in the IR spectra of organic radical ions. A theoretical study, 3015

Organometallic complex
Effect of *N*-alkylation on the rate of *β*-amine elimination from transients with Cu^{II}–carbon *σ* bonds, 4045

Organosilane
Modelling of the reaction-phase interaction of *γ*-aminopropyltriethoxysilane with silica, 2037

Orientation dependence
Orientation dependence of the $F + H_2$ and $H + F_2$ reactions using the line-of-centres model with angle-dependent collision diameters and barrier heights, 1481
Orientational dependence of the $N(^4S) + NO(X\ ^2\Pi)$ and $N(^4S) + O_2(X\ ^3\Sigma_g^-)$ reactions: Comparison of the angle-dependent line-of-centres model with quasiclassical trajectories, 3223

Oscillatory reaction
Oscillations of electrical potential differences in the non-electrolyte analogue of the salt-water oscillator, 905

Osmium-containing polymer film
Effect of electrolyte concentration and redox centre oxidation state on the layer mass of osmium-containing poly(4-vinylpyridine) films, 1695

Osmometry
Thermodynamics of association of cholesterol in an aprotic solvent, 3065

Osmoregulation
Effect of osmoregulatory solutes on the stability of proteins, 2769

Oxazine
Frequency up-conversion in fluid and solid solutions of the oxazine dye, Rhodamine B, 4013

Oxidation
Oxidation of glucose at electrodeposited platinum electrodes in alkaline solution, 385
Alkali-metal ion catalysis in the oxidation of L-ascorbic acid by hexacyanoferrate(III) in strongly acidic media, 3571
Vapour-phase oxidation of diamond surfaces in O_2 studied by diffuse reflectance Fourier-transform infrared and temperature-programmed desorption spectroscopy, 3635
Kinetic study of the partial oxidation of methane over $Fe_2(MoO_4)_3$ catalyst, 4225

Oxidation catalyst
Infrared characterization of the hydrocarbon intermediates in the oxidation of toluene and xylenes over vanadia–titania catalysts, 753
Electron paramagnetic resonance study of La cuprate-based catalysts for phenol oxidation, 3727

Oxidation kinetics
Effect of solvent on the kinetics of oxidation of *trans*-$[CoNH_3(en)_2NCS]^{2+}$ by IO_4^-: A quantitative approach, 1745

Oxidative dissolution
Oxidative dissolution of chromium(III) oxides by metaperiodate ions in perchloric acid, 3389

Oxide/aqueous interface
1-p*K* multisites description of charge development at the aqueous alumina interface. Adsorption of Pd^{II}–amine complexes, 4091

Oxide catalyst
Spectroscopic characterization of CuTh oxide catalysts in decomposition of isopropyl alcohol, 2545

Oxide surface
Hydrogen chemisorption on ceria: Influence of the oxide surface area and degree of reduction, 3499

Oxomolybdenum complex
Single-crystal electron paramagnetic resonance of (dialkyldithiocarbamato-*S*,*S*′)[hydrotris (3,5-dimethylpyrazolyl)-borato]oxovanadium (IV) (alkyl = ethyl or *n*-propyl), 3695

Oxovanadium(IV) dimer
Effects of the modulation of magnetic exchange interactions on the electron paramagnetic resonance spectra of some carboxylate-bridged oxovanadium(IV) dimers, 3705

Oxovanadium complex
Single-crystal electron paramagnetic resonance of (dialkyldithiocarbamato-*S*,*S*′)[hydrotris (3,5-dimethylpyrazolyl)-borato]oxovanadium (IV) (alkyl = ethyl or *n*-propyl), 3695

Oxygen transport
Effects of long-range forces on oxygen transport in yttria-doped ceria: Simulation and theory, 3123

Ozone dissociation
Photofragment vector correlations by ion imaging: O_2 [a $^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 1443
Corrigendum to Photofragment vector correlations by ion imaging: O_2 [a $^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 3667

P_2 radical
Observation of the P_2 radical by resonance-enhanced multiphoton ionisation spectroscopy, 2337

Palladium
Adsorption and autocatalytic decomposition of acetic acid on Pd(110), 1249

Paramagnetism
Temperature-independent paramagnetism in closed-shell oxoanions of first-row transition metals, 1915
3d Electron delocalization studied by *ortho*- to *para*-positronium conversion reactions, 3737

Partial least-squares regression
Special data handling techniques for Fourier-transform infrared photo-acoustic spectra. Estimation and characterization of the N contents on ammoniated trichlorosilylated silica gel, using partial least-squares regression and curve fitting on the Si—H stretching vibration, 63

Partial molar heat capacity
Heat capacities of D-mannitol and D-sorbitol in water, dimethyl sulfoxide and formamide, 1351

Partial molar volume
Thermodynamics of solvation of ions. Part 6.—The standard partial molar volumes of aqueous ions at 298.15 K, 713
Molar volumes of metal complex ions in water. Part 1.—Hexaammine and trisdiamine complexes, 3039

Partial oxidation
Partial oxidation of methane with oxygen over magnesium oxide at low temperatures, 1263

Particle desposition
Calculation of particle deposition rate under unfavourable particle–surface interactions, 3443

Particle motion
Studies on the origin of sonically induced narrowing of solid-state nuclear magnetic resonance spectra, 3029

Partition constant
Calculation of partition constants for a series of organic compounds *via* a novel solubility-parameter-based method, 3751

Pattern matching
Boolean programming formulation of some pattern-matching problems in molecular biology, 2603

***p*-Benzosemiquinone radical anion**
Structure, bonding and vibrational modes of the *p*-aminophenoxyl radical and *p*-benzosemiquinone radical anion from *ab initio* molecular orbital calculations, 665

Pd–Pt cluster
Polymer-protected palladium–platinum bimetallic clusters: Preparation, catalytic properties and structural considerations, 2537

Pentacyanoferrate(II)
Pentacyanoferrate(II): Solvatochromism and reactivity in micelles and in reversed micelles, 783

Peptide
Partial molar heat capacities and volumes of aqueous solutions of some peptides that model side-chains of proteins, 2761

Percolation

Percolation model of adsorption-induced response of the electrical characteristics of polycrystalline semiconductor adsorbents, 559
Structure and dynamics of microemulsions. Part 1.—Effect of additives on percolation of conductance and energetics of clustering in water–AOT–heptane microemulsions, 3277

Permeability
Effect of lipid charge and solution composition on the permeability of phospholid–gramicidin monolayers to Tl^+, 2799

Permselective film
Role of film history and observational timescale on redox switching kinetics of electroactive films. Part 1.—A new model for permselective films with polymer relaxation processes, 339

Peroxide
Mechanism of bleaching by peroxides. Part 2.—Kinetics of bleaching of alizarin and crocetin by hydrogen peroxide at high pH, 4035

Phase diagram
Microstructure of the CTAB–butanol–octane–water microemulsion system: Effect of dissolved salts, 3585

Phase equilibria
Theory of phase equilibria for multicomponent aqueous solutions: Applications to aqueous polymer two-phase systems, 4283

Phase transition
^1H and ^{19}F nuclear magnetic relaxation study of the dynamics of the hydrogen difluoride ion, FHF^-, in the α- and β-phases of caesium hydrogen difluoride, 693
First low-temperature ^{15}N nuclear magnetic resonance study of nitrogen physisorption/condensation in microporous solids, 833
Phase behaviour of monoglyceride/water systems, 2823
Solid–liquid phase transitions and amorphous states in ternary sucrose–glycine–water systems, 3283
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 1.—Electrical conductivity of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 powder, 3805
Ionic halides and oxides at high pressure: Calculated Hugoniots, isotherms and thermal pressures, 4369

Phenol
Diffusion coefficients of aqueous phenols determined by the Taylor dispersion technique. Evidence for solute adsorption on the walls of Teflon tubing, 113
Dissociation constants of substituted phenols and homoconjugation constants of the corresponding phenol–phenolate systems in acetonitrile, 119

Phenol–methanol complex
Zero-kinetic-energy (ZEKE) photoelectron spectroscopy of the hydrogen-bonded phenol–methanol complex, 1609

Phenolphthalein
Mechanism of bleaching by peroxides. Part 1.—Kinetics of bleaching of phenolphthalein by hydrogen peroxide, 1203

Phenysiloxane
Relaxation processes in the excited state of phenylsiloxanes, 3007

Phosphatidylcholine–D_2O suspension
Nuclear magnetic resonance spectroscopy of frozen phosphatidylcholine–D_2O suspensions: A new technique for measuring hydration forces, 2583

Phospholipid
Effect of lipid charge and solution composition on the permeability of phospholid–gramicidin monolayers to Tl^+, 2799
Global target analysis of fluorescence depolarization in model membranes using exponential splines, 2815

Phosphorescence
Acid–base properties of disodium 3,3′-disulfonatobenzophenone (DSB) in the ground and excited states, 699

Photocatalysis
Photocatalytic deposition of bismuth(III) ions onto TiO_2 powder, 129
Semiconductor photocatalysis: Quantised CdS-catalysed photoformation of 1-benzyl-1,4-dihydronicotinamide (BNAH) from 1-benzylnicotinamide (BNA^+), 1857
Photocatalytic oxidation of propan-2-ol by semiconductor–zeolite composites, 1867

Photochemical reduction
Photocatalytic deposition of bismuth(III) ions onto TiO_2 powder, 129

Photochemistry
Photosensitizers: comprehensive photophysics/photochemistry and theory of coumarins, chromones, their homologues and thione analogues, 1007
Photoexcitation energy transfer of binary and ternary systems mediated by a bilayer membrane containing biphenyl moiety, 1365
Photochemistry on surfaces: Solvent–matrix effect on the swelling of cellulose. An emission and absorption study of adsorbed auramine O, 1937

Photodissociation
Translational spectroscopy of H (D) atom fragments arising from the photodissociation of H_2S (D_2S): A redetermination of D_0(S—H), 3865

Photoelectron–photoion coincidence technique
Fragmentation of valence electronic states of BF_3^+ below 21.2 eV, 1179

Photoexcitation energy transfer
Photoexcitation energy transfer of binary and ternary systems mediated by a bilayer membrane containing biphenyl moiety, 1365

Photofragment translational spectroscopy
Translational spectroscopy of H (D) atom fragments arising from the photodissociation of H_2S (D_2S): A redetermination of D_0(S—H), 3865

Photofragment vector correlation
Photofragment vector correlations by ion imaging: O_2 [$a\,^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 1443
Corrigendum to Photofragment vector correlations by ion imaging: O_2 [$a\,^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 3667

Photoinduced reaction
Photoinitiated processes in complexes: Subpicosecond studies of CO_2—HI and stereospecificity in Ar—HX, 1419

Photoinitiated bimolecular reaction
Analysis of product Doppler-broadened profiles generated from photoinitiated bimolecular reactions, 1427

Photoinitiated electron transfer
Photoinitiated electron-transfer reactions across the interface between two immiscible electrolyte solutions, 207

Photoionization
Electron paramagnetic resonance and proton matrix electron nuclear double resonance studies of *N,N,N′,N′*-tetramethylbenzidine photoionization in sodium dodecyl sulfate micelles: Structural effects of added alcohols, 4085

Photoisomerization
Triplet pathways in the *cis* ⇄ *trans* photoisomerization of 4-acetyl- and 4-benzoyl-stilbene, 4027

Photoluminescence
Electron paramagnetic resonance studies on manganese(II)-containing zinc and cadmium sulfide materials, 3723

Photolysis
266 nm Photolysis of HOCl and DOCl: Laser-excitation fluorescence detection of OH and OD, 1623
Formation and photolysis of tantalum sulfide cluster ions, 1779

Photon correlation spectroscopy
Microstructure of the CTAB–butanol–octane–water microemulsion system: Effect of dissolved salts, 3585

Photon-induced reaction
Stereodynamics of photon-induced reactions *via* Doppler-resolved laser-induced fluorescence spectroscopy: Photodissociation of $HONO_2$ and the reaction of $O(^1D)$ with CH_4, 1435

Photophysics
Photophysics, molecular reorientation in solution and X-ray structure of a new fluorescent probe, 1,7-diazaperylene, 49
Intermolecular energy transfer between phenanthrene and lanthanide ions in aqueous micellar solution, 873
Photosensitizers: comprehensive photophysics/photochemistry and theory of coumarins, chromones, their homologues and thione analogues, 1007
Kinetic spectroscopy of pyrazolotriazole azomethine dyes, 2385
Influence of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine (ZnPC), 3347

Photopolymerized triacrylate monomer
Electron paramagnetic resonance characterization and thermal decay of radicals trapped in a photopolymerized triacrylate monomer, 4215

Photoreactivity
Preparation, characterization and photoreactivity of titanium(IV) oxide encapsulated in zeolites, 1861

Photoreduction kinetics
X-Ray photoelectron spectroscopic studies on the kinetics of photoreduction of Fe^{III} in single-crystal $K_3(Fe,Co)(CN)_6$ surfaces cleaved *in situ*, 743

Photosensitivity
Photosensitizers: comprehensive photophysics/photochemistry and theory of coumarins, chromones, their homologues and thione analogues, 1007
Excited-state properties and photosensitization behaviour of bis(2,4-dihydroxyphenyl) squaraine, 2397
Influence of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine (ZnPC), 3347
Continuous-wave CO_2 laser-induced chain reaction of 1,2-dichloroethane, 4171
Determination of the structural configuration and the cross-linking reaction between 2-*p*-(formylstyryl)-3,4-dimethylthiazol-3-ium moieties in photosensitive polymers, 4327

Photosynthesis
Light-induced triplet electron transfer in cyclohexane-bridged porphyrin–quinones detected by time-resolved electron paramagnetic resonance spectroscopy, 2853

Photosystem II
Nature of the S_2 state electron paramagnetic resonance signals from the oxygen-evolving complex of photosystem I: Q-band and oriented X-band studies, 2863

Phthalocyanine
Influence of halogenation and aggregation on photosensitizing properties of zinc phthalocyanine (ZnPC), 3347

Picosecond laser flash photolysis
Photophysical properties of laser dyes· Picosecond laser flash photolysis studies of Rhodamine 6G, Rhodamine B and Rhodamine 101, 4185

Picosecond laser spectroscopy
Photoinduced intramolecular charge separation in an anthraquinone-linked all-*cis* 5,10,15,20-*meso*-tetrakis(2-aminophenyl)porphyrin derivative studied by picosecond and nanosecond laser spectroscopy, 3243

Pitzer's parameter
Pitzer's parameters for thallium(I) chloride in aqueous solutions at 298.15 K from solubility measurements in TlCl–LiCl–H_2O and TlCl–KCl–H_2O systems, 1353

Planetary nebula
Millimetre observations and chemical processes in circumstellar envelopes and planetary nebulae, 2137

Plasma
Diffuse reflectance infrared Fourier-transform study of the plasma hydrogenation of diamond surfaces, 1383
Diffuse-reflectance Fourier-transform infrared study of the plasma-fluorination of diamond surfaces using a microwave discharge in CF_4, 3105

Plasticiser
Plasticiser-induced local structure in polymer electrolytes, 349

Platinised alumina
In situ EXAFS study of the effect of hydrocarbon

deposition over Pt/Al_2O_3 and $Pt–Re/Al_2O_3$ catalysts, 159
Platinum electrodes
Oxidation of glucose at electrodeposited platinum electrodes in alkaline solution, 385
Platinum–rhenium alumina
In situ EXAFS study of the effect of hydrocarbon deposition over Pt/Al_2O_3 and $Pt–Re/Al_2O_3$ catalysts, 159
Poisson–Boltzmann
Attraction among macroions in electrolytes: A semianalytical demonstration, 739
Primitive model electrolytes in the modified Poisson–Boltzmann theory, 1315
Polarizability
Effect of anisotropy of polarizability of the linear quadrupole molecule on the rate of ion capture, 655
Polarization effect
Collision energy and product polarization effects in the $Ca^*(^1D_2) + HCl \rightarrow CaCl^*(A, B) + H$ reaction, 1493
Velocity-averaging effects on polarisation measurements in hot atom reactions, 1527
Polarized water
Strongly polarized water at the interfacial region in reversed micelles containing 1,4,8,11-tetramethyl-1,4,8,11-tetraazacyclotetradecanenickel(II) as a probe, 535
Polarography
Gibbs energies, entropies and enthalpies of transfer for monovalent cations from acetonitrile to several solvents, 3557
Polyacetylene–polyisoprene copolymer
Electrochemical behaviour of polyacetylene–polyisoprene copolymers, 277
Polyaniline
Cyclic voltammetry and morphology of polyaniline-coated electrodes containing $[Fe(CN)_6]^{3-/4-}$ ions, 295
Polybithiophene
An *in situ* Fourier-transform infrared study of the electroreduction of polybithiophene, 921
Polycyclic aromatic hydrocarbons
Neutral and ionized polycyclic aromatic hydrocarbons, diffuse interstellar bands and the ultraviolet extinction curve, 2277
Polyelectrolyte
Effect of anionic polyelectrolytes on the dissolution of magnetite in thioglycolic acid solutions, 1049
Polyhydroxy compound
Adsorption of pentaerythritol at the mercury/aqueous sodium fluoride interphase, 181
Polymer
Theory of phase equilibria for multicomponent aqueous solutions: Applications to aqueous polymer two-phase systems, 4283
Determination of the structural configuration and the cross-linking reaction between 2-*p*-(formylstyryl)-3,4-dimethylthiazol-3-ium moieties in photosensitive polymers, 4327
Polymer adsorption
Problem of measuring steric interaction forces between surfaces bearing adsorbed layers of macromolecules in good solvents, 4059
Polymer branching
Functionality dependence of the distribution of cyclic species in network formation, 4181
Polymer electrolyte
Plasticiser-induced local structure in polymer electrolytes, 349
Polymer electrolytes, 3187
Polymer film
Effect of electrolyte concentration and redox centre oxidation state on the layer mass of osmium-containing poly(4-vinylpyridine) films, 1695
Role of film history and observational timescale in redox switching kinetics of electroactive films. Part 2.—Visualizing electrochemical redox switching pathways involving four or more distinct relaxation times, 3779
Study of diffusion in films on planar substrates by ellipsometry, 4053
Polymerization
Dielectric spectroscopy of the polymerization process of methyl methacrylate, 3477
Polymer matrix
Electron paramagnetic resonance characterization and thermal decay of radicals trapped in a photopolymerized triacrylate monomer, 4215
Polymer-modified electrode
Application of a transmission line model to impedance studies on a poly(vinylferrocene)-modified electrode, 327
Polymer relaxation
Role of film history and observational timescale on redox switching kinetics of electroactive films. Part 1.—A new model for permselective films with polymer relaxation processes, 339
Polymer solution
Molecular interactions in cosolvent ternary polymer systems, 1765
Polyol
Water sorption, binding and solubility of polyols, 3271
Polypyridylruthenium(II) complex
Synthesis and characterisation of a new DNA-binding bifunctional ruthenium(II) complex, 3261
Polypyrrole
Anion movement and carrier type in polypyrrole/dodecyl sulfate, 303
Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 311
Corrigendum to Contribution to the theory of conducting-polymer electrodes in electrolyte solutions, 3181
Polysaccharide gel
Nuclear magnetic resonance studies on the protonation equilibria of oxoanions in polysaccharide gels as models for biological media, 3925
Polystyrene
Electrokinetics of polystyrene latices: The role of the hydrophobic surface, 521
Influence of electrostatic interactions on β-casein layers adsorbed on polystyrene latices, 3419
Polyvinylpyrrolidone
Equilibrium and kinetic studies associated with the interaction between sodium dodecyl sulfate and polyvinylpyrrolidone in aqueous solution, 2737
Pore
'Liquid–vapour' density profiles for fluids in pores from density functional theory, 789
Synthesis, characterization, thermal stability, acidity and catalytic properties of large-pore MAPO-46, 4141
Pore filling
Primary and secondary filling of micropores in active carbons, 2055
Porosity
Surface properties and porosities of silica and acid-treated montmorillonite catalyst supports: Influence on activities of supported $ZnCl_2$ alkylation catalysts, 1387
^{129}Xe Nuclear magnetic resonance studies of the porous structure of silica gels, 4239
Porous electrode
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 2.—Unfolding of the electrochemically accessible surface of rough or porous electrodes: A case-study with an electrodeposited porous Pt electrode, 243
Porphyrin
Steric and inductive effects on the basicity of porphyrins and on the site of protonation of porphyrin dianions: Radiolytic reduction of porphyrins and metalloporphyrins to chlorins or phlorins, 495
Light-induced triplet electron transfer in cyclohexane-bridged porphyrin–quinones detected by time-resolved electron paramagnetic resonance spectroscopy, 2853
Photoinduced intramolecular charge separation in an anthraquinone-linked all-*cis* 5,10,15,20-*meso*-tetrakis(2-aminophenyl)porphyrin derivative studied by picosecond and nanosecond laser spectroscopy, 3243
Positronium conversion
3d Electron delocalization studied by *ortho*- to *para*-positronium conversion reactions, 3737
Potassium chloride
Temperature dependence of O_3^- electron paramagnetic resonance signals in KCl, 3691
Potassium-doped nickel
Structural and catalytic properties of several potassium-doped nickel/α-alumina solids, 3981
Potassium-modified alumina
Interfacial chemistry in the preparation of catalytic potassium-modified aluminas, 2527
Potential-energy function
Quasi-relativistic MS$X\alpha$ calculations of a_{1g} potential-energy curves for MoF_6, WF_6 and UF_6, 25
Reactions of $N(2\,^2D)$ and $N(2\,^2P)$ with H_2 and D_2, 995
Locating stationary points for clusters in Cartesian coordinates, 1305
Study of the $I \cdot CO_2$ van der Waals complex by threshold photodetachment spectroscopy of I^-CO_2, 1449
Double many-body expansion of the two lowest potential-energy surfaces for Li_3 and dynamics of the $Li + Li_2(v)$ reaction. Initial orientation and vibrational excitation effects, 1511
Quasiclassical three-dimensional dynamics of the $B + OH \rightarrow BO + H$ reaction: Dependence on the nature of the potential-energy surface, 1587
Potential-energy functions for Cu, Ag and Au solids and their application to clusters of these elements, 1659
Theoretical prediction of the guest periodicity of alkane/urea inclusion compounds, 2023
Dynamical trajectory study of the reaction $O(^3P) + Cl_2 \rightarrow OCl + Cl$, 2999
Virial theorem decomposition of potential-energy surfaces. Analysis of the double many-body expansion ground-state surface of Li_3, 3885
Dissociation of hydrogen and nitrogen molecules studied using density functional theory, 3999
Potentiometric clinical analyser
Calibration solutions for the simultaneous potentiometric measurement of sodium, potassium and calcium in blood plasma: Examination of the electrochemical factors affecting precision and accuracy in direct potentiometric clinical analysers, 369
Potentiometric sensor
Flexible (Kapton-based) microsensor arrays of high stability for cardiovascular applications, 361
Potentiometric titration
Substituent effects and chiral discrimination in the complexation of benzoic, 4-methylbenzoic and (*RS*)-2-phenylpropanoic acids and their conjugate bases by β-cyclodextrin and 6^A-amino-6^A-deoxy-β-cyclodextrin in aqueous solution: potentiometric titration and ^1H nuclear magnetic resonance spectroscopic study, 1035
Solvation of copper(I) and stability of its complex with cryptand 222 in dimethyl sulfoxide–acetonitrile mixtures, 2015
Cation-exchange properties of iron(III) phosphate, 3843
Powders
Electron paramagnetic resonance studies on manganese(II)-containing zinc and cadmium sulfide materials, 3723
Precipitation
Calcite and aragonite formation from aqueous calcium hydrogencarbonate solutions: Effect of induced electromagnetic field on the activity of $CaCO_3$ nuclei precursors, 2457
Predissociation dynamics
High-resolution electronic spectroscopy and predissociation dynamics of SiH_2^+ in high-K_a states, 177
Primitive model electrolyte
Primitive model electrolytes in the modified Poisson–Boltzmann theory, 1315
Propagation modelling
Modelling propagation and re-entry in anisotropic and smoothly heterogeneous cardiac tissue, 2833
Propan-2-ol
Photocatalytic oxidation of propan-2-ol by

semiconductor–zeolite composites, 1867
Acid–base properties of metallic oxide catalysts studied by conversion of propan-2-ol, 3151
Protein
Electrical migration in convective electrophoresis: Modelling and membrane separation of bovum serum albumin (BSA) and cytochrome *c*, 99
Interaction of urea with fluorophores bound to protein surfaces, 1959
Scanning tunnelling microscopy of *Aspergillus niger* glucoamylases, 2595
Lost hydrogen bonds and buried surface area: Rationalising stability in globular proteins, 2609
A comparison of three theoretical approaches to the study of side-chain interactions in proteins, 2619
A comparison of three theoretical approaches to the study of side-chain interactions in proteins, 2619
Structure of bovine γB-crystallin at 150 K, 2677
Partial molar heat capacities and volumes of aqueous solutions of some peptides that model side-chains of proteins, 2761
Effect of osmoregulatory solutes on the stability of proteins, 2769
Diffusion in buffered protein solutions: Combined Nernst–Planck and multicomponent Fick equations, 2775
Molecular basis of thermal aggregation of bovine β-lactoglobulin A, 3395
Electron spin-echo envelope modulation studies of the [3Fe–4S] cluster of *Escherichia coli* fumarate reductase, 3685
Protein crystallography
High-resolution crystallographic studies of native concanavalin A using rapid Laue data collection methods and the introduction of a monochromatic large-angle oscillation technique (LOT), 2667
Protonation equilibrium
Nuclear magnetic resonance studies on the protonation equilibria of oxoanions in polysaccharide gels as models for biological media, 3925
Protonic acid sites
Protonic acid sites in stabilised Y zeolites after reduction of M^{2+} cations with hydrogen, 1833
Proton polarizability
Na^+ polarizability due to collective Na^+ ion motion in disodium salts of 2,6-bis(diethylaminomethyl)phenolate di-*N*-oxides as a function of the electron density at the O atom of the phenolate group, 1211
Proton spin relaxation
Proton spin relaxation, internal motion and structure in solid 1,2,4,5,-tetraisopropylbenzene, 3801
Proton transfer
Effects of external ions on the energetics of proton transfer in hydrogen-bonded systems modelling a membrane-active drug–receptor interaction, 1321
Proton transverse relaxation
Proton nuclear magnetic resonance lineshapes and transverse relaxation in a hydrated barley protein, 4203
Pseudo-planar molecule
Corrigendum to Diffusion of pseudo-planar molecules: An experimental evaluation of the molecular effects on diffusion, 867
Pt/TiO_2–SiO_2
X-Ray absorption spectroscopic and electron paramagnetic resonance studies on the strong metal–support interaction of platinum supported on titania dispersed on silica, 2067
Pulsed, crossed, supersonic molecular beam
Translational energy dependence of the reactive cross-section of the C + NO → CN + O reaction studied in pulsed, crossed, supersonic molecular beams, 1501
Pulsed laser photolysis
Pressure and temperature dependence of the rate of reaction between CN radicals and NO over the range $99 \leqslant T/K \leqslant 450$, 1
Pulse radiolysis
Radiation stability of fullerenes: Pulse radiolysis of C_{60} and C_{70} in hydrocarbon solvents, 95
Pulse radiolysis study on radical cations of alkyl bromides in aqueous solutions, 477
Temperature dependence of the rate constant for the reaction H + OH in liquid water up to 200 °C, 485
Preparation of unstable quinones in aqueous solution *via* pulse radiolytic one-electron oxidation of dihydroxybenzenes, 803
Reactions of $N(2\,^2D)$ and $N(2\,^2P)$ with H_2 and D_2, 995
Pyrazinecarbaldehyde
Vibrational spectrum of pyrazinecarbaldehyde, 43
Quadrupole interaction
Quadrupole interactions in pure non-dipolar fluorinated or methylated benzenes and their binary mixtures, 2441
Corrigendum to Conductometric identification of triple-ion and quadrupole formation by the coordination forces from lithium trifluoroacetate and lithium pentafluoropropionate in protophobic aprotic solvents, 3515
(^{13}C, ^2H) Residual dipolar and indirect spin–spin coupling effects in high-resolution ^{13}C nuclear magnetic resonance spectra of solids, 3791
Quantum theory
The coupling of nuclear and electronic motions in molecules, 2321
Quantum wave packet study
Collinear quantum wave packet study of exothermic A + BC reactions involving an intermediate complex of linear geometry. Application to the C + NO reaction, 1579
Quartz crystal microbalance
Size-quantised cadmium sulfide particles in Langmuir–Blodgett films: Film thermal stability, 2031
Quasiclassical dynamics
Quasiclassical three-dimensional dynamics of the B + OH → BO + H reaction: Dependence on the nature of the potential-energy surface, 1587
Quasi-relativistic molecular Hamiltonian
Quasi-relativistic MSXα calculations of a_{1g} potential-energy curves for MoF_6, WF_6 and UF_6, 25
Quaternary ammonium salt
Solubilities and Gibbs energies of transfer of asymmetrical quaternary and non-quaternary ammonium salts in water and non-aqueous solvents at 298.15 K, 2437
Quenching kinetics
Temperature-jump and trajectory studies of the quenching of $CO_2(010)$ by atomic oxygen, 1183
Comparative electron-transfer quenching rates of 9,10-dicyanoanthracene by various donors in solvents of different polarities, 4271
Quinone
Preparation of unstable quinones in aqueous solution *via* pulse radiolytic one-electron oxidation of dihydroxybenzenes, 803
Radiative association rate
Calculations of interstellar radiative association rates including tunnelling: The strange case of $C_2H_2^+ + H_2$, 2175
Radical cation
Pulse radiolysis study on radical cations of alkyl bromides in aqueous solutions, 477
Radical–molecule complex
Photoinitiated processes in complexes: Subpicosecond studies of CO_2—HI and stereospecificity in Ar—HX, 1419
Radical pair
Detection of radical pairs in glassy systems, 59
Radiolysis
Steric and inductive effects on the basicity of porphyrins and on the site of protonation of porphyrin dianions: Radiolytic reduction of porphyrins and metalloporphyrins to chlorins or phlorins, 495
Radiation-induced C—C bond cleavage in 1,2-diarylethanes as model compounds of coal. Part 2.—Pulse and steady-state radiolysis of 1,2-di(pyren-1-yl)ethane in tetrahydrofuran, dimethoxyethane and toluene in the presence of sodium dihydridobis(2-methoxyethoxy) aluminate, 891
Temperature dependence of *g* values for H_2O and D_2O irradiated with low linear energy transfer radiation, 1193
Dichotomy in dissociative electron capture: Electron paramagnetic resonance detection of iodine atoms in methanol glasses, 1199
Electron paramagnetic resonance studies of irradiated D-glucose-6-phosphate ions: Relevance to DNA, 1955
Raman spectroscopy
Vibration–rotation spectra of the ν_1, ν_3 and ν_5 parallel bands and potential constants of $CF_3C{\equiv}CH$, 3675
Raman spectroscopic study of the conformational behaviour of the polymorphic non-ionic surfactant α-hexadecyl-ω-hydroxytris(oxyethylene) ($C_{16}E_3$), 4079
Fourier-transform infrared and Raman spectra of pure and Al-, B-, Ti- and Fe-substituted silicalites: Stretching-mode region, 4123
Structure of the *p*-aminophenoxyl radical, 4177
Rate constant
Pressure and temperature dependence of the rate of reaction between CN radicals and NO over the range $99 \leqslant T/K \leqslant 450$, 1
Temperature dependence of the rate constant for the reaction H + OH in liquid water up to 200 °C, 485
Kinetics of elementary reactions at low temperatures: rate constants for the reactions of OH with HCl ($298 \geqslant T/K \geqslant 138$), CH_4 ($298 \geqslant T/K \geqslant 178$) and C_2H_6 ($298 \geqslant T/K \geqslant 138$), 631
Reactions of $N(2\,^2D)$ and $N(2\,^2P)$ with H_2 and D_2, 995
Rate constants for chemical reactions of radicals at low temperatures, 2185
Corrigendum to Rate constants for the reductions of CH_3O and C_2H_5O with NO_2 over a range of temperature and total pressure, 4251
Reaction dynamics
Initial and final orbital alignment probing of the fine-structure-changing collisions among the Ca $(4s)^1(4p)^1$, ^3P_J states with He: Determination of coherence and conventional cross-sections, 1401
Four-vector study of the spin-changing collision $Ba[(6s)^1(6p)^1, {}^1P_1 \rightarrow (6s)^1(6p)^1, {}^3P_2]/H_2$, 1413
Photoinitiated processes in complexes: Subpicosecond studies of CO_2—HI and stereospecificity in Ar—HX, 1419
Analysis of product Doppler-broadened profiles generated from photoinitiated bimolecular reactions, 1427
Stereodynamics of photon-induced reactions *via* Doppler-resolved laser-induced fluorescence spectroscopy: Photodissociation of $HONO_2$ and the reaction of $O(^1D)$ with CH_4, 1435
Photofragment vector correlations by ion imaging: O_2 [a $^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 1443
Study of the $I \cdot CO_2$ van der Waals complex by threshold photodetachment spectroscopy of I^-CO_2, 1449
Frequency- and time-resolved cluster photodissociation dynamics in $Sr^+(H_2O)_n$, $Sr^+(NH_3)_n$ and $Sr^+(CH_3OH)_n$, 1457
Magnetically selected beams of atomic chlorine: Measurement of long-range features of the chlorine–hydrogen and chlorine–methane potential-energy surfaces, 1467
Inelastic F–H_2 scattering, 1475
Orientation dependence of the F + H_2 and H + F_2 reactions using the line-of-centres model with angle-dependent collision diameters and barrier heights, 1481
Transition-state dynamics of F + Cl_2 reactive scattering, 1487
Collision energy and product polarization effects in the $Ca^*(^1D_2)$ + HCl → CaCl*(A, B) + H reaction, 1493
Translational energy dependence of the reactive cross-section of the C + NO → CN + O reaction studied in pulsed, crossed, supersonic molecular beams, 1501
Collisional autoionization dynamics of Ne^*–Cl_2, 1505
Double many-body expansion of the two lowest potential-energy surfaces for Li_3 and dynamics of the Li + $Li_2(v)$ reaction. Initial orientation and vibrational excitation effects,

1511
Velocity-averaging effects on polarisation measurements in hot atom reactions, 1527
How a collision complex forgets its origin; H_3^+, 1533
Optical spectra of spatially oriented molecules: ICl in a strong electric field, 1539
Probing of alignment and orientation using electric-dipole-forbidden transitions, 1551
Alignment and orientation in $Li(2p_m)-H^+$ charge-transfer collisions, 1573
Collinear quantum wave packet study of exothermic A + BC reactions involving an intermediate complex of linear geometry. Application to the C + NO reaction, 1579
Quasiclassical three-dimensional dynamics of the B + OH → BO + H reaction: Dependence on the nature of the potential-energy surface, 1587
Dynamical trajectory study of the reaction $O(^3P) + Cl_2 \rightarrow OCl + Cl$, 2999
Corrigendum to Photofragment vector correlations by ion imaging: O_2 [a $^1\Delta_g(v, J)$] from 248 nm dissociation of ozone, 3667
Reaction kinetics
How to define the potential difference driving net chemical transformation, 3681
Reactive collision
Inelastic $F-H_2$ scattering, 1475
Reactive scattering
Transition-state dynamics of $F + Cl_2$ reactive scattering, 1487
Real-area determination
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 1.—Basis for distinction between capacitance of the double layer and the pseudocapacitance due to adsorbed H in the H_2 evolution reaction at Pt, 235
Problem of *in situ* real-area determination in evaluation of performance of rough or porous, gas-evolving electrocatalysts. Part 2.—Unfolding of the electrochemically accessible surface of rough or porous electrodes: A case-study with an electrodeposited porous Pt electrode, 243
Recoil reaction
Reactions of recoil bromine species produced by neutron capture in 1,4-dibromobenzene–benzene mixtures, 3257
Rectifying behaviour
Rectifying behaviour of n-titanium dioxide–polybithiophene semiconductor–polymer bilayers: An electrochemical quartz crystal microbalance investigation, 3941
Redox behaviour
Heterogeneous catalysis in solution. Part 26.—Electrochemical and kinetic studies of the reaction between *N,N*-dimethyl-*p*-phenylenediamine and chloropentaamminocobalt(III) at platinum, gold and silver surfaces, 229
Role of film history and observational timescale on redox switching kinetics of electroactive films. Part 1.—A new model for permselective films with polymer relaxation processes, 339
Reversible redox behaviour between silver cations and silver metal particles in hydrated Ag-Y zeolites, 595
Role of film history and observational timescale in redox switching kinetics of electroactive films. Part 2.—Visualizing electrochemical redox switching pathways involving four or more distinct relaxation times, 3779
Refrigerant
Gas viscosities and intermolecular interactions of replacement refrigerants HCFC 123 (2,2-dichloro-1,1,1-trifluoroethane); HCFC 124 (2-chloro-1,1,1,2-tetrafluoroethane and HFC 134a (1,1,1,2-tetrafluoroethane), 3545
Relative permittivity
Ethane-1,2-diol–water solvent system: Relative permittivity as a function of temperature and binary composition, 123
Relaxation process
Relaxation processes in the excited state of phenylsiloxanes, 3007
Remineralisation
Scanning microradiographic and microtomographic studies of remineralisation of subsurface enamel lesions, 2907
Resonance-enhanced multiphoton ionisation spectroscopy
Zero-kinetic-energy (ZEKE) photoelectron spectroscopy of the hydrogen-bonded phenol–methanol complex, 1609
Observation of the P_2 radical by resonance-enhanced multiphoton ionisation spectroscopy, 2337
Resonance Raman spectroscopy
Excited state properties of thiaporphyrins and their dications, 677
Reversed micelle
Strongly polarized water at the interfacial region in reversed micelles containing 1,4,8,11-tetramethyl-1,4,8,11-tetraazacyclotetra decanenickel(II) as a probe, 535
Rh/Al_2O_3 catalyst
Mass spectrometry and *in situ* infrared diffuse reflectance analysis of the decomposition of HCOOH adsorbed on Ln_2O_3-promoted Rh/Al_2O_3 catalysts, 3307
Rheology
Transient and steady-state rheology of silica suspensions in hydroxypropyl(methyl)cellulose solutions, 2467
Rheology evidence of adsorbate-mediated short-range steric forces in concentrated dispersions, 2473
Rheomorphic protein
Caseins as rheomorphic proteins: Interpretation of primary and secondary structures of the α_{S1}-, β- and κ-caseins, 2683
Rhodamine
Frequency up-conversion in fluid and solid solutions of the oxazine dye, Rhodamine B, 4013
Resonant second harmonic generation study of Rhodamine B adsorbed onto fused silica. Models of the surface optics for calculation of the molecular orientation of adsorbate, 4017
Rigid lattice model
Uses and limitations of rigid lattice models for rationalising excess thermodynamic functions of binary liquid mixtures at low pressures, 3767
Rotating-disc electrode
Theoretical analysis for a second-order ECE process at a rotating-disc electrode, 213
Heterogeneous catalysis in solution. Part 26.—Electrochemical and kinetic studies of the reaction between *N,N*-dimethyl-*p*-phenylenediamine and chloropentaamminocobalt(III) at platinum, gold and silver surfaces, 229
Rotating ring–disc electrode
Comproportionation in propylene carbonate of substituted bipyridyliums. Rates and equilibria by rotating ring–disc electrode and associated electrochemical studies, 219
Rotational energy transfer
Rotational and vibrational energy transfer in $CH(A\,^2\Delta)$, 1287
Rotational hyperfine structure
Observation and analysis of rotational and nuclear hyperfine structure in bands of the red system of copper dichloride, 3205
Rotational relaxation
Application of the thermal conduction model to rotational relaxation in molecular beams, 1903
Monte Carlo calculation of rotational relaxation in small molecules, 3517
Rotational spectroscopy
Does the vapour of trimethylphosphonium bromide contain ion pairs $(CH_3)_3PH^+\cdots Br^-$? An answer from the rotational spectrum, 3319
Identification and characterisation of the gas-phase complex $HCN\cdots Cl_2$ by rotational spectroscopy, 4157
$Ru-Rh/SiO_2$ catalyst
In situ Fourier-transform infrared studies of $CO-H_2$ reactions over $Ru-Rh/SiO_2$ catalysts at high pressure and temperature, 1117
Ruthenium
Cyclic voltammetry of benzo-15-crown-5 ether-vinyl-bipyridyl ligands, their ruthenium(II) complexes and bismethoxyphenyl-vinyl-bipyridyl ruthenium(II) complexes. Electrochemical polymerization studies and supporting electrolyte effects, 333
Rydberg state
Spectroscopy of the Rydberg states of SO in a supersonic jet, 391
Salt effect
Nuclear magnetic resonance study of self-association of small hydrophobic solutes in water: Salt effects and the lyotropic series, 1215
Salt-water oscillator
Oscillations of electrical potential differences in the non-electrolyte analogue of the salt-water oscillator, 905
Scaled quantum-mechanical force field
Gas-phase infrared spectrum of indazole. Scaled quantum mechanical force field and complete spectrum assignment, 4005
Scanning electrochemical microscopy
A new approach to the study of dissolution kinetics, 1883
Scanning microradiography
Scanning microradiographic and microtomographic studies of remineralisation of subsurface enamel lesions, 2907
Scanning tunnelling microscopy
Scanning probe microscopy of collagen I and pN-collagen I assemblies and the relevance to scanning tunnelling microscopy contrast generation in proteins, 2589
Scanning tunnelling microscopy of *Aspergillus niger* glucoamylases, 2595
Scavenger
Diffusion-kinetic modelling of the cooperative effect of scavengers on the scavenged yield of the hydroxyl radical, 3527
Secondary electron emission spectroscopy
Auger electron, electron energy loss, secondary electron emission and secondary ion mass spectroscopic studies on the oxidation of hafnium at room temperature, 3611
Secondary ion mass spectrometry
Chemisorption of thiol compounds onto gold surfaces studied by static secondary ion mass spectrometry and relevance of data to ion formation mechanisms during sputtering, 179
Auger electron, electron energy loss, secondary electron emission and secondary ion mass spectroscopic studies on the oxidation of hafnium at room temperature, 3611
Second harmonic generation
Resonant second harmonic generation study of Rhodamine B adsorbed onto fused silica. Models of the surface optics for calculation of the molecular orientation of adsorbate, 4017
Self-association
Self-association of octan-1-ol in the pure liquid state and in decane solutions as observed by viscosity, self-diffusion, nuclear magnetic resonance and near-infrared spectroscopy measurements, 707
Nuclear magnetic resonance study of self-association of small hydrophobic solutes in water: Salt effects and the lyotropic series, 1215
Self-propagating synthesis
Phase and chemical transformations in the self-propagating wave of an exothermal reaction in a mixture of organic powders, 727
Semiconductor
Percolation model of adsorption-induced response of the electrical characteristics of polycrystalline semiconductor adsorbents, 559
Surface processes at electrolyte/highly doped semiconductor interfaces analysed by electroreflectance modelling, 1717
Semiconductor photocatalysis: Quantised CdS-catalysed photoformation of 1-benzyl-1,4-dihydronicotinamide (BNAH) from 1-benzylnicotinamide (BNA^+), 1857
Photocatalytic oxidation of propan-2-ol by semiconductor–zeolite composites, 1867
Rectifying behaviour of n-titanium dioxide–polybithiophene semiconductor–polymer bilayers: An electrochemical quartz crystal microbalance

investigation, 3941
Semiquinone
Electron paramagnetic resonance of the interaction of semiquinone, Na^+ ion pairs with phosphatidylcholine in ethereal solvents, 3363
Membrane–buffer partition coefficients of semiquinones using the spin-broadening technique, 3773
Sensor
Percolation model of adsorption-induced response of the electrical characteristics of polycrystalline semiconductor adsorbents, 559
Sepiolite
Influence of preparation method on the characteristics of nickel/sepiolite catalysts, 3651
SiC
Interstellar SiC grains in meteorites, 2297
SiH_2^+
High-resolution electronic spectroscopy and predissociation dynamics of SiH_2^+ in high-K_a states, 177
Silane
Kinetic studies and *ab initio* investigations of the reactions of atomic bromine with methylsilane and dimethylsilane, 419
Infrared laser-induced chemistry of chlorodifluoromethane–silane mixtures at two irradiating wavelengths, 3907
Silanol–hydrogen molecular complex
An *ab initio* investigation of the molecular structure and vibrational spectrum of the silanol–hydrogen molecular complex, 983
Silica
Fourier-transform infrared spectroscopic study of acetonitrile adsorbed on silica-supported nickel and nickel oxide, 837
Fourier-transform infrared spectroscopic studies of the adsorption of ketene on silica, 1121
Corrigendum to Transport of an adsorbing vapour in a model silica system, 1151
Modelling of the reaction-phase interaction of γ-aminopropyltriethoxysilane with silica, 2037
Transient and steady-state rheology of silica suspensions in hydroxypropyl(methyl)cellulose solutions, 2467
Silica gel
Stability and surface acidity of niobium(v) oxide grafted on a silica gel surface, 1057
Reaction of NH_3 with trichlorosilylated silica gel: A study of the reaction mechanism as a function of temperature, 2509
^{129}Xe Nuclear magnetic resonance studies of the porous structure of silica gels, 4239
Silicalite
Adsorption of methanol and related molecules on zeolite H-ZSM-5 and Silicalite, 1139
Structural effect on molecular simulations of tight-pore systems, 1683
Fourier-transform infrared and Raman spectra of pure and Al-, B-, Ti- and Fe-substituted silicalites: Stretching-mode region, 4123
Silicate
In-framework ion dipole polarizabilities in non-porous and porous silicates and aluminosilicates, determined from Auger electron spectroscopy data, 2499
Nuclear magnetic resonance studies of the synthesis of silicalite by the 'Fluoride Method', 4245
Silver
In situ far-infrared evidence for a potential dependence of silver–water interactions, 195
Superadditive catalysis of homogeneous redox reactions with mixed silver–gold colloids, 2479
Infrared reflection absorption spectroscopy, X-ray photoelectron spectroscopy and temperature-programmed desorption study on the adsorption and decomposition of $Fe(CO)_5$ over silver surfaces, 4387
Silylene
First kinetic measurements on $[^2H_2]$silylene: Absolute rate constant for the reaction $SiD_2 + H_2$, 4405
Single-crystal electron paramagnetic resonance spectroscopy
Single-crystal electron paramagnetic resonance of (dialkyldithiocarbamato-*S*,*S'*)[hydrotris (3,5-dimethylpyrazolyl)-borato]oxovanadium (IV) (alkyl = ethyl or *n*-propyl), 3695
Single-ion activity
Single-ion activities based on the electrical double-layer model: An indirect test of the Gouy–Chapman theory, 187
Small-angle neutron scattering
Electrochemical behaviour of polyacetylene–polyisoprene copolymers, 277
Small-angle neutron scattering investigations of the structure of thixotropic dispersions of smectite clay colloids, 4207
Small-angle X-ray scattering
Electrochemical behaviour of polyacetylene–polyisoprene copolymers, 277
Smectite clay
Small-angle neutron scattering investigations of the structure of thixotropic dispersions of smectite clay colloids, 4207
Sodium tetrachloroaluminate
Solubility of nickel chloride in molten sodium tetrachloroaluminate saturated with sodium chloride over the temperature range 200–400 °C, 3817
Sol-gel glass
Ultraviolet–visible–near-infrared and EXAFS study of Co^{II} coordination chemistry in post-doped silica sol–gel glasses, 4115
Sol–gel–xerogel transition
Ultraviolet–visible absorption spectra of Thymol Blue during the sol–gel–xerogel transition of tetraethyl orthosilicate: *In situ* probe of microchemical environment, 3437
Solid 1,2,4,5- tetraisopropylbenzene
Proton spin relaxation, internal motion and structure in solid 1,2,4,5,-tetraisopropylbenzene, 3801
Solid polymer electrolyte
Comparative electrochemical study of new poly(oxyethylene)–Li salt complexes, 355
Solid-state nuclear magnetic resonance spectroscopy
Solid-state ^{13}C and ^2H nuclear magnetic resonance studies of the benzene–hexafluorobenzene complex, 823
Solid-state transformation
Solid-state transformation of SAPO-37 molecular sieve above 1100 K, 1823
Solubility
Solubilities and Gibbs energies of transfer of asymmetrical quaternary and non-quaternary ammonium salts in water and non-aqueous solvents at 298.15 K, 2437
Water sorption, binding and solubility of polyols, 3271
Electron paramagnetic resonance of the interaction of semiquinone, Na^+ ion pairs with phosphatidylcholine in ethereal solvents, 3363
Calculation of partition constants for a series of organic compounds *via* a novel solubility-parameter-based method, 3751
Solubility of nickel chloride in molten sodium tetrachloroaluminate saturated with sodium chloride over the temperature range 200–400 °C, 3817
Diffusivity and solubility of hydrogen and deuterium in yttrium, 4375
Solution fluorescence
Photophysics of UV-excited Cl_2CS in a perfluoroalkane solvent, 3251
Solution kinetics
Kinetic evidence for the effects of urea on the properties of aqueous micellar solutions of sodium dodecyl sulfate, 1373
Solution reactions
Nature of interactions between phosphines and HO acids in aprotic solvents: Nuclear magnetic resonance low-temperature studies, 2463
Solution thermodynamics
Role of functional-group position in determining the interaction between structure-maker and structure-breaker solutes. A microcalorimetric study of the interactions in aqueous solutions between positional isomers of alkan-*m*-ols and urea or biuret, 3061
Thermodynamics of association of cholesterol in an aprotic solvent, 3065
Relative viscosities and quasi-thermodynamics of solutions of *tert*-butyl alcohol in the methanol–water system: A different view of the alkyl–water interaction, 3381
Solvated metal ion
Frequency- and time-resolved cluster photodissociation dynamics in $Sr^+(H_2O)_n$, $Sr^+(NH_3)_n$ and $Sr^+(CH_3OH)_n$, 1457
Solvation
Thermodynamics of solvation of ions. Part 6.—The standard partial molar volumes of aqueous ions at 298.15 K, 713
Solvation and reactivity of iron(II)–Diimine complexes in dimethyl sulfoxide–water mixtures, 1041
Dissociation constants and preferential solvation in some 2-methylpropan-2-ol–alcohol mixtures, 1723
Solvation of copper(I) and stability of its complex with cryptand 222 in dimethyl sulfoxide–acetonitrile mixtures, 2015
Sterically controlled complexation of manganese(II) and cobalt(II) with chloride ions in *N*,*N*-dimethylacetamide, 3055
Solvatochromism
Solvatochromism of a typical merocyanine dye. Further investigations, 55
Iron–diimine–cyanide complexes as probes for aqueous micellar systems, 531
Pentacyanoferrates(II): Solvatochromism and reactivity in micelles and in reversed micelles, 783
Solvent effect on the charge-transfer transition of a novel amphiphilic pentacyano(4-octadecylaminopyridine)ferrate(II) complex, 1021
Solvent effect
Radiation stability of fullerenes: Pulse radiolysis of C_{60} and C_{70} in hydrocarbon solvents, 95
Effect of solvent on the kinetics of oxidation of *trans*-$[CoNH_3(en)_2NCS]^{2+}$ by IO_4^-: A quantitative approach, 1745
Solvent sensitivity of the wavenumber characterising the carbonyl stretching vibration of *N*-cyclohexyl-2-pyrrolidinone dissolved in pure liquids and in mixtures formed by hexane and deuteriotrichloromethane at 298.2 K, 4199
Solvent interaction
Biophysical study of halophilic malate dehydrogenase in solution: Revised subunit structure and solvent interactions of native and recombinant enzyme, 2659
Solvolysis
Kinetics of the solvolysis of a cationic and of an anionic chlorocobalt(III) complex in water–glucose mixtures: Anomalous effects on the enthalpy and entropy of activation, 3565
Sonically induced narrowing nuclear magnetic resonance
Studies on the origin of sonically induced narrowing of solid-state nuclear magnetic resonance spectra, 3029
SO radical
Spectroscopy of the Rydberg states of SO in a supersonic jet, 391
D-Sorbitol
Heat capacities of D-mannitol and D-sorbitol in water, dimethyl sulfoxide and formamide, 1351
Sorption isotherm
Sorption of organic solvents into dense silicone membranes. Part 1.—Validity and limitations of Flory–Huggins and related theories, 4339
Sorption of organic solvents into dense silicone membranes. Part 2.—Development of a new approach based on a clustering hypothesis for associated solvents, 4347
Spectral line narrowing
Studies on the origin of sonically induced narrowing of solid-state nuclear magnetic resonance spectra, 3029
Spectrophotometry
Strongly polarized water at the interfacial region in reversed micelles containing 1,4,8,11-tetramethyl-1,4,8,11-tetraazacyclotetradecanenickel(II) as a probe, 535
Acid–base properties of disodium 3,3'-disulfonatobenzophenone (DSB) in the

ground and excited states, 699
Spherical tensor formalism
Probing of alignment and orientation using electric-dipole-forbidden transitions, 1551
Spin-changing collision
Four-vector study of the spin-changing collision $Ba[(6s)^1(6p)^1, {}^1P_1 \rightarrow (6s)^1(6p)^1, {}^3P_2]/H_2$, 1413
Spin state
Temperature-jump method for determining the equilibrium constant of the iron spin states in human methaemoglobin A, 1361
Spur kinetics
Stochastic analysis of the asymptotic kinetics of multi-particle spurs, 1299
Squaraine dye
Excited-state properties and photosensitization behaviour of bis(2,4-dihydroxypbenyl) squaraine, 2397
Stainless steel alloy
Study of the anodic oxidation of stainless steel alloys, and their constituent elements, in acidic electrolytes, 547
Stationary point
Locating stationary points for clusters in Cartesian coordinates, 1305
Stellar and galactic formation
Spiers memorial lecture: The chemistry of astronomical environments, 2111
Stereospecific reaction
Photoinitiated processes in complexes: Subpicosecond studies of CO_2—HI and stereospecificity in Ar—HX, 1419
Steric force
Problem of measuring steric interaction forces between surfaces bearing adsorbed layers of macromolecules in good solvents, 4059
Steric forces
Rheology evidence of adsorbate-mediated short-range steric forces in concentrated dispersions, 2473
Stilbenes
Triplet pathways in the *cis* ⇄ *trans* photoisomerization of 4-acetyl- and 4-benzoyl-stilbene, 4027
Stirred-flow cell
Kinetics of ion exchange in a stirred-flow cell, 107
Stochastic modelling
Stochastic analysis of the asymptotic kinetics of multi-particle spurs, 1299
Stochastic modelling of the influence of an applied electric field on the ion recombination kinetics of multiple-ion-pair spurs in low-permittivity liquids, 3533
Strong metal-support interaction
Effect of the support on the Fischer–Tropsch synthesis with Co/Nb_2O_5 catalysts, 3975
Strontium–calcium hydroxyapatites
Adsorption of CO_2 on non-stoichiometric strontium–calcium hydroxyapatites, 3821
Strontium fluoride
Heat of adsorption of water on SrF_2: Relation to two-dimensional condensation of water adsorbed on SrF_2, 2041
Sucrose–glycine–water system
Solid–liquid phase transitions and amorphous states in ternary sucrose–glycine–water systems, 3283
Sugar
Interactions between cations and sugars. Part 7.—Gibbs energies, enthalpies and entropies of association of the trivalent lanthanide cations with ribose in water at 298.15 K, 1223
Superadditive catalysis
Superadditive catalysis of homogeneous redox reactions with mixed silver–gold colloids, 2479
Supercooled organic liquid
Novel differential scanning calorimetric studies of supercooled organic liquids, 509
Supernova 1987A
Spiers memorial lecture: The chemistry of astronomical environments, 2111
Supersonic jet
Spectroscopy of the Rydberg states of SO in a supersonic jet, 391
Spectroscopy and dynamics of the first excited state of 1- and 2-cyanonaphthalene cooled in a supersonic jet, 623
Supported catalyst
Problems involved in the reducibility of the NiO–MgO system as evidenced by X-ray diffraction, electron paramagnetic resonance, electron spectroscopy for chemical analysis and adsorption techniques, 943
Reduction of supported iron oxide studied by temperature-programmed reduction combined with Mössbauer spectroscopy and X-ray diffraction, 1079
Reactions of cyclopentene and deuterium over supported-metal catalysts, 1095
Surface properties and porosities of silica and acid-treated montmorillonite catalyst supports: Influence on activities of supported $ZnCl_2$ alkylation catalysts, 1387
Temperature-programmed reduction and oxidation of nickel supported on $WO–Al_2O_3$ composite oxides, 2075
Mechanistic studies of the reactions of 3,3-dimethylbut-1-ene with deuterium over supported-metal catalysts, 2519
Reactions of propane and of *n*-butane with hydrogen over palladium catalysts, 3129
Fluorinated hydrotreatment catalysts. Acidity and carbon deposition on fluorine–nickel–molybdenum/γ-alumina catalysts, 3157
Influence of the reduction temperature on the properties of silica-supported nickel catalysts, 3313
Influence of preparation method on the characteristics of nickel/sepiolite catalysts, 3651
Structural and catalytic properties of several potassium-doped nickel/α-alumina solids, 3981
Characterisation of Cr/silica catalysts. Part 2.—Ti- and Mg-modified catalysts, 4393
Surface acidity
Corrigendum to Interaction pathway of chloride ions with γ-Al_2O_3: Surface acidity and thermal stability of the Cl/γ-Al_2O_3 system, 601
Stability and surface acidity of niobium(v) oxide grafted on a silica gel surface, 1057
Surface analysis
Characterisation of Cr–silica polymerisation catalysts, 843
X-Ray photoelectron spectroscopic study of a Cu–Al–O catalyst under H_2 or CO atmospheres, 1257
Surface area
Interaction of aqueous solutions of ammonia with carbons, 939
Surface coating
Modelling of the reaction-phase interaction of γ-aminopropyltriethoxysilane with silica, 2037
Surface hydroxy group
An *ab initio* investigation of the molecular structure and vibrational spectrum of the silanol–hydrogen molecular complex, 983
Surface morphology
Are the pore and surface morphologies of real catalysts fractal?, 4109
Surface optics
Resonant second harmonic generation study of Rhodamine B adsorbed onto fused silica. Models of the surface optics for calculation of the molecular orientation of adsorbate, 4017
Surface–particle interaction
Calculation of particle deposition rate under unfavourable particle–surface interactions, 3443
Surface structure
Surface models for $\gamma = Al_2O_3$ from molecular dynamics simulations, 3623
Surfactant
Strongly polarized water at the interfacial region in reversed micelles containing 1,4,8,11-tetramethyl-1,4,8,11-tetraazacyclcloteta decanenickel(II) as a probe, 535
Thermodynamics of micellization of some decyl poly(oxyethylene glycol) ethers in aqueous urea solutions, 3465
Entry and spreading of alkane drops at the air/surfactant solution interface in relation to foam and soap film stability, 4313
Micelle formation by anionic and cationic surfactants in binary aqueous solvents, 4323
Suspended noble-metal catalyst
Dehydrogeno-aromatization of cyclohexanes with suspended noble-metal catalysts, 3641
Synchrotron radiation
High-resolution crystallographic studies of native concanavalin A using rapid Laue data collection methods and the introduction of a monochromatic large-angle oscillation technique (LOT), 2667
Tantalum sulfide
Formation and photolysis of tantalum sulfide cluster ions, 1779
Taylor dispersion method
Diffusion coefficients of aqueous phenols determined by the Taylor dispersion technique. Evidence for solute adsorption on the walls of Teflon tubing, 113
Moments analysis of strongly coupled diffusion in Taylor dispersion profiles. Sodium hydroxide–sodium dodecyl sulfate–water, 515
Mutual diffusion coefficients for the systems water–ethanol and water–propan-1-ol at 25 °C, 1969
Telomeric radical
Kinetics and mechanism of the thermal gas-phase reaction between trifluoromethylhypofluorite, CF_3OF, and trichloroethene, 451
Temperature dependence
Temperature dependence of the effect of deuteriation on the chlorine-35 quadrupole resonance frequency in an $Mg(H_2O)_6SnCl_6$ crystal, 3359
Temperature dependence of O_3^- electron paramagnetic resonance signals in KCl, 3691
Temperature-jump method
Temperature-jump and trajectory studies of the quenching of $CO_2(010)$ by atomic oxygen, 1183
Temperature-jump method for determining the equilibrium constant of the iron spin states in human methaemoglobin A, 1361
Temperature-programmed analysis
Characterisation of Cr–silica polymerisation catalysts, 843
Reduction of supported iron oxide studied by temperature-programmed reduction combined with Mössbauer spectroscopy and X-ray diffraction, 1079
Combined temperature-programmed desorption and Fourier-transform infrared spectroscopy study of CO_2, CO and H_2 interactions with model ZnO/SiO_2, Cu/SiO_2 and $Cu/ZnO/SiO_2$ methanol synthesis catalysts, 1109
Partial oxidation of methane with oxygen over magnesium oxide at low temperatures, 1263
Temperature-programmed reduction and oxidation of nickel supported on $WO–Al_2O_3$ composite oxides, 2075
Temperature-programmed reduction and oxidation of nickel supported on $WO–Al_2O_3$ composite oxides, 2075
Surface characterization and hydrogenation properties of several nickel/α-alumina catalysts, 3507
Vapour-phase oxidation of diamond surfaces in O_2 studied by diffuse reflectance Fourier-transform infrared and temperature-programmed desorption spectroscopy, 3635
One-step 2,6-lutidine synthesis from acetone, ammonia and methanol. Temperature-programmed desorption–reaction (TPDR)–mass spectrometry (MS) study, 4381
Tensor formalism
Thermometry by degenerate four-wave mixing: *J* dependence of laser-induced grating reflectivity, 2951
Ternary diffusion coefficient
Moments analysis of strongly coupled diffusion in Taylor dispersion profiles. Sodium hydroxide–sodium dodecyl sulfate–water, 515
Ternary polymer solution
Molecular interactions in cosolvent ternary polymer systems, 1765
Ternary system
Solid–liquid phase transitions and amorphous states in ternary sucrose–glycine–water

systems, 3283
Thermodynamic study of the ternary system NaCl–H_2O–Et_3N at 25 °C. Part 1.—Volumes, 3761
tert-Butyl bromide
Rotational spectra of *tert*-butyl bromide and iodide measured in the millimetre-wave region and by Fourier-transform techniques, 397
tert-Butyl iodide
Rotational spectra of *tert*-butyl bromide and iodide measured in the millimetre-wave region and by Fourier-transform techniques, 397
Tetraphenylarsonium fulleride
Electrochemical crystallization of tetraphenylphosphonium and tetraphenylarsonium fullerides, 273
Tetraphenylphosphonium fulleride
Electrochemical crystallization of tetraphenylphosphonium and tetraphenylarsonium fullerides, 273
Thallium chloride
Pitzer's parameters for thallium(I) chloride in aqueous solutions at 298.15 K from solubility measurements in TlCl–LiCl–H_2O and TlCl–KCl–H_2O systems, 1353
Thermal aggregation
Molecular basis of thermal aggregation of bovine β-lactoglobulin A, 3395
Thermal conduction model
Application of the thermal conduction model to rotational relaxation in molecular beams, 1903
Thermal desorption
Thermal desorption of *n*-alcohols intercalated in vanadium pentaoxide hydrate, 3827
Thermal hydrogenation
Thermal hydrogenation of diamond surfaces studied by diffuse reflectance Fourier-transform infrared, temperature-programmed desorption and laser Raman spectroscopy, 1783
Thermal stability
Corrigendum to Interaction pathway of chloride ions with γ-Al_2O_3: Surface acidity and thermal stability of the Cl/γ-Al_2O_3 system, 601
Thermodynamics
A method for introducing scaling behaviour into a classical equation of state, 69
Excess molar enthalpies of steam–cyclohexane and steam–benzene from 448.2–698.2 K and up to 14 MPa, 77
Excess heat capacities of mixtures of two alcohols, 81
Van der Waals liquids, Flory theory and mixing functions for chlorobenzene with linear and branched alkanes, 89
Thermodynamics of solvation of ions. Part 6.—The standard partial molar volumes of aqueous ions at 298.15 K, 713
Thermodynamics of coupled reactions by the analysis of chemical relaxation signals: The nickel(II)–murexide system, 719
Phase and chemical transformations in the self-propagating wave of an exothermal reaction in a mixture of organic powders, 727
Group 14 methylene–methane-type complexes: A theoretical study, 775
Thermodynamic and kinetic factors in chloride ion pitting and nitrogen donor ligand inhibition of aluminium metal corrosion in aggressive acid media, 795
Thermodynamic study of complex formation by hydrogen bonding in halogenoalkane–oxygenated solvent mixtures: Halothane with acetone, methyl acetate, tetrahydrofuran and methyl *tert*-butyl ether, 1025
Interactions between cations and sugars. Part 7.—Gibbs energies, enthalpies and entropies of association of the trivalent lanthanide cations with ribose in water at 298.15 K, 1223
Approximate analytical expressions for the properties of an electrical double layer with asymmetric electrolytes, 1229
Primitive model electrolytes in the modified Poisson–Boltzmann theory, 1315
Heat capacities of D-mannitol and D-sorbitol in water, dimethyl sulfoxide and formamide, 1351
Standard Gibbs energies of transfer of some electrolytes from water to aqueous sucrose solutions at 298.15 K, 1741
Thermodynamic behaviour of mixtures. Part 1.—Mixtures of pyridine with β-picoline, γ-picoline, isoquinoline, benzene and cyclohexane at 25 °C, 2001
Activation parameters and the influence of ionic strength upon the hexacyanoferrate(III)–iodide reaction in some aqueous organic media, 2011
Thermodynamic behaviour of binary systems of quinoline with methylene chloride, chloroform, carbon tetrachloride benzene and cyclohexane. Vapour pressures and excess molar Gibbs energies, 2429
Hydrogen bonds between cholesterol and oxygen bases: A thermodynamic study, 2433
Quadrupole interactions in pure non-dipolar fluorinated or methylated benzenes and their binary mixtures, 2441
Thermodynamics of micelle formation of some alkylpyridinium bromides, 2445
From neutral to ionic species: Amine-*p*-*tert*-butyl calix(*n*)arene (*n* = 6,8) interaction. Electrochemical, thermodynamic and structural studies in benzonitrile, 2727
Equilibrium and kinetic studies associated with the interaction between sodium dodecyl sulfate and polyvinylpyrrolidone in aqueous solution, 2737
Partial molar heat capacities and volumes of aqueous solutions of some peptides that model side-chains of proteins, 2761
Conductivity of tetraphenylphosphonium bromide in 2-methoxyethanol–water, 3043
Thermodynamic behaviour of mixtures. Part 2.—Mixtures of acetonitrile with β-picoline, γ-picoline, 2,6-lutidine, isoquinoline and benzene at 25 °C, 3049
Sterically controlled complexation of manganese(II) and cobalt(II) with chloride ions in *N*,*N*-dimethylacetamide, 3055
Water sorption, binding and solubility of polyols, 3271
Evaluation of dissociation constants of ammonium ions in aqueous ammonium chloride and potassium chloride solutions and of pertinent higher-order parameters according to the Pitzer approach, 3371
Excess molar enthalpies of methanol–cyclohexane and methanol–benzene from 454.2 to 523.0 K and up to 4 MPa, 3375
Thermodynamics of micellization of some decyl poly(oxyethylene glycol) ethers in aqueous urea solutions, 3465
Enthalpies of formation of buckminsterfullerene (C_{60}) and of the parent ions C_{60}^+, C_{60}^{2+}, C_{60}^{3+} and C_{60}^-, 3541
Kinetics of the solvolysis of a cationic and of an anionic chlorocobalt(III) complex in water–glucose mixtures: Anomalous effects on the enthalpy and entropy of activation, 3565
How to define the potential difference driving net chemical transformation, 3681
Calculation of partition constants for a series of organic compounds *via* a novel solubility-parameter-based method, 3751
Thermodynamic study of the ternary system NaCl–H_2O–Et_3N at 25 °C. Part 1.—Volumes, 3761
Uses and limitations of rigid lattice models for rationalising excess thermodynamic functions of binary liquid mixtures at low pressures, 3767
Properties of $CaCl_2$ hydrate with an inorganic powder. Part 2.—Melting behaviour and thermodynamic properties of $CaCl_2 \cdot nH_2O$ (n = 6.00–7.35) with α-Al_2O_3 or α-SiC powder, 3811
Solubility of nickel chloride in molten sodium tetrachloroaluminate saturated with sodium chloride over the temperature range 200–400 °C, 3817
Excess molar enthalpies of ethanol–hexane, ethanol–cyclohexane and ethanol–benzene from 453.5 to 522.9 K and up to 4.5 MPa, 4193
Solvent sensitivity of the wavenumber characterising the carbonyl stretching vibration of *N*-cyclohexyl-2-pyrrolidinone dissolved in pure liquids and in mixtures formed by hexane and deuteriotrichloromethane at 298.2 K, 4199
Relation between the formation constant and the local structure of various bases and reference acids for the 1:1 hydrogen-bond complexation in aprotic solvents, 4279
Theory of phase equilibria for multicomponent aqueous solutions: Applications to aqueous polymer two-phase systems, 4283
Sorption of organic solvents into dense silicone membranes. Part 1.—Validity and limitations of Flory–Huggins and related theories, 4339
Sorption of organic solvents into dense silicone membranes. Part 2.—Development of a new approach based on a clustering hypothesis for associated solvents, 4347
Thermolysis
Fourier-transform infrared study of the gas-phase thermolysis of trifluoroacetic acid, 2409
Thermometry
Thermometry by degenerate four-wave mixing: *J* dependence of laser-induced grating reflectivity, 2951
Thiaporphyrin
Excited state properties of thiaporphyrins and their dications, 677
Thiol compounds
Chemisorption of thiol compounds onto gold surfaces studied by static secondary ion mass spectrometry and relevance of data to ion formation mechanisms during sputtering, 179
Thiophosgene
Photophysics of UV-excited Cl_2CS in a perfluoroalkane solvent, 3251
Thiourea
(^{13}C, ^2H) Residual dipolar and indirect spin–spin coupling effects in high-resolution ^{13}C nuclear magnetic resonance spectra of solids, 3791
Thymol Blue
Ultraviolet–visible absorption spectra of Thymol Blue during the sol–gel–xerogel transition of tetraethyl orthosilicate: *In situ* probe of microchemical environment, 3437
Time-resolved technique
Absolute rate data for the reactions of ground-state atomic carbon, C[$2p^2(^3P_J)$], with alkenes investigated by time-resolved atomic resonance absorption spectroscopy in the vacuum ultraviolet, 7
Time-resolved studies of the temperature dependence of the gas-phase reactions of methylsilylene with silane and the methylsilanes, 411
Kinetic studies and *ab initio* investigations of the reactions of atomic bromine with methylsilane and dimethylsilane, 419
A kinetic investigation of the reaction Ca + O_3 over the temperature range 213–383 K, 763
Kinetic investigation of the time-resolved atomic fluorescence Sr($5\,^3P_1 \rightarrow 5\,^1S_0$) and molecular chemiluminescence SrCl($A\,^2\Pi$, $B\,^2\Sigma^+ \rightarrow X\,^3\Sigma^+$) following the pulsed dye-laser generation of Sr($5\,^3P_J$) in the presence of CH_3Cl and CF_3Cl, 1645
Investigation of the collisional behaviour of electronically excited germanium atoms, Ge[$(4p)^2(^1D_2)$], by time-resolved atomic resonance absorption spectroscopy in the ultraviolet, 1653
Time-resolved resonance Raman spectroscopy of carotenoids in Triton X-100 micellar solution, 1753
Light-induced triplet electron transfer in cyclohexane-bridged porphyrin–quinones detected by time-resolved electron paramagnetic resonance spectroscopy, 2853
Time-resolved resonance Raman spectroscopy of α-tocopheroxyl and related radicals in solvent, micellar and membrane systems, 2873
Tin oxide
Paramagnetic point defects in SnO_2 and their reactivity with the surrounding gases. Part 1.—Interaction of oxygen lattice centres with

vapour-phase H_2O, air, inert and combustible gases, as revealed by electron paramagnetic resonance spectroscopy, 3711
Titania
Adsorption of $[Cr(CN)_5NO]^{3-}$ on TiO_2 from solution studied by electron paramagnetic resonance spectroscopy, 1809
Titania–silica
Effect of the composition of titania–silica on its physical and catalytic properties, 757
Titanium(IV) oxide
Preparation, characterization and photoreactivity of titanium(IV) oxide encapsulated in zeolites, 1861
Titanium antimonate
Predictive evaluation of ion-exchange selectivity on a titanium antimonate cation exchanger, 851
Titanium phosphate
Effect of calcination on titanium phosphate produced by H_3PO_4 treatment of anatase, 2515
α-Tocopheroxyl radical
Time-resolved resonance Raman spectroscopy of α-tocopheroxyl and related radicals in solvent, micellar and membrane systems, 2873
Toroidal polyhex
Toroidal polyhexes, 1945
Tracer diffusion coefficient
Tracer diffusion of ionic micelles: Effects of size and interactions, 3459
Trajectory calculation
How a collision complex forgets its origin; H_3^+, 1533
Dynamical trajectory study of the reaction $O(^3P) + Cl_2 \rightarrow OCl + Cl$, 2999
Transdermal drug transport
Electrical properties of human *stratum corneum* and transdermal drug transport, 2839
Transfer parameter
Temperature coefficients of electrode potentials and Gibbs energies, entropies and enthalpies of transfer of Ag^+, Na^+ and Tl^+ from *N*,*N*-dimethylformamide to its mixtures with *N*,*N*-dimethylthioformamide and with water, 2007
Solubilities and Gibbs energies of transfer of asymmetrical quaternary and non-quaternary ammonium salts in water and non-aqueous solvents at 298.15 K, 2437
Temperature coefficients of $Cu|Cu^{2+}$ and $Hg|Hg^{2+}$ electrode potentials and Gibbs energies, entropies and enthalpies of transfer for Cu^{2+} and Hg^{2+}, 3553
Gibbs energies, entropies and enthalpies of transfer for monovalent cations from acetonitrile to several solvents, 3557
Transition metal
Temperature-independent paramagnetism in closed-shell oxoanions of first-row transition metals, 1915
Transition-metal complex
Solvent effect on the charge-transfer transition of a novel amphiphilic pentacyano(4-octadecylaminopyridine)ferrate(III) complex, 1021
Density functional study of the tetraoxometallates of Cr^{VI}, Mn^{VI} and Fe^{VI}, 3745
Transition-state dynamics
Transition-state dynamics of $F + Cl_2$ reactive scattering, 1487
Transition-state theory
Effect of anisotropy of polarizability of the linear quadrupole molecule on the rate of ion capture, 655
Transmission electron microscopy
X-Ray diffraction, high-resolution transmission electron microscopy and Fourier-transform infrared study of Ca-doped Al_2O_3, 135
X-Ray diffraction, transmission electron microscopy and X-ray photoelectron spectroscopic characterization of $IrO_2 + Ta_2O_5$ films, 1707
Structure of the surface sites of δ-Al_2O_3 as determined by high-resolution transmission electron microscopy, computer modelling and infrared spectroscopy of adsorbed CO, 3483
Transmission line model
Application of a transmission line model to impedance studies on a poly(vinylferrocene)-modified electrode, 327
Transmission line model for conducting polymer including cations and Donnan exclusion, 2487
Transport
Can membrane transport parameters that vary with time be derived from electrochemical measurements in an external electrolyte?, 2783
^7Li and ^{23}Na Nuclear magnetic resonance studies of transport and diffusion in liposomes. Comparison of transport rate constants estimated using pulsed field gradient and magnetization-transfer procedures, 2807
Steady states in membrane distillation: Influence of membrane wetting, 4333
Triaryl pyrylium cation
Spectroscopic properties of a triarylpyrylium cation, 457
Trichlorocyclopropenium cation
Crystal structure determination of $C_3Cl_3^+AlCl_4^-$ and *ab initio* studies of the structure and vibrational spectrum of the trichlorocyclopropenium cation, 3597
Trifluoroacetic acid
Fourier-transform infrared study of the gas-phase thermolysis of trifluoroacetic acid, 2409
Trifluoroacetonitrile
Microwave spectra, hyperfine splittings and average structures of 3,3,3-trifluoropropyne, $CF_3{\equiv}CH$ and trifluoroacetonitrile, CF_3CN, 2937
Trifluoropropyne
Microwave spectra, hyperfine splittings and average structures of 3,3,3-trifluoropropyne, $CF_3{\equiv}CH$ and trifluoroacetonitrile, CF_3CN, 2937
Trimethylphosphonium bromide
Does the vapour of trimethylphosphonium bromide contain ion pairs $(CH_3)_3PH^+\cdots Br^-$? An answer from the rotational spectrum, 3319
TRIPLE
Influence of cation, solvent and temperature on *Z*–*E* isomerisation of radical ion pairs derived from (*Z*)- and (*E*)-1,2-bis(2,4,6-trimethylbenzoyl)ethenes by chemical reduction with alkali metals and magnesium. A structural, electron paramagnet resonance, ENDOR and TRIPLE resonance study, 1327
Triple-ion formation
Corrigendum to Conductometric identification of triple-ion and quadrupole formation by the coordination forces from lithium trifluoroacetate and lithium pentafluoropropionate in protophobic aprotic solvents, 3515
Two-phase system
Theory of phase equilibria for multicomponent aqueous solutions: Applications to aqueous polymer two-phase systems, 4283
***tyr*T DNA sequence**
Factors involved in guanine/cytosine (G/C) selectivity of DNA-binding drugs: A molecular modelling study of ligand interactions with a *tyr*T DNA sequence, 2651
Ultramicroporous structure
New molecular probe technique for the assessment of ultramicroporous structure, 2059
Ultrasonic velocity
Thermodynamic behaviour of mixtures. Part 1.—Mixtures of pyridine with β-picoline, γ-picoline, isoquinoline, benzene and cyclohexane at 25 °C, 2001
Ultraviolet–electron spectroscopy
$Zn_4O(O_2CNEt_2)_6$: A further molecular model of ZnO, 4363
Ultraviolet–photoelectron spectroscopy
$Zn_4O(O_2CNEt_2)_6$: A further molecular model of ZnO, 4363
Ultraviolet spectroscopy
Translational spectroscopy of H (D) atom fragments arising from the photodissociation of H_2S (D_2S): A redetermination of $D_0(S{-}H)$, 3865
Ultraviolet–visible absorption spectroscopy
Ultraviolet–visible absorption spectra of Thymol Blue during the sol–gel–xerogel transition of tetraethyl orthosilicate: *In situ* probe of microchemical environment, 3437
Ultraviolet–visible spectroscopy
Ultraviolet–visible spectroscopic investigations on the interaction of neopentane with acidic zeolites, 4221
Underpotential deposition
Expulsion of borate ions from the silver/solution interfacial region during underpotential deposition discharge of Bi^{III} in borate buffer, 251
Urea
Interaction of urea with fluorophores bound to protein surfaces, 1959
EXAFS spectroscopic studies of the bromine environment in the crystalline inclusion compounds formed between urea and α,ω-dibromoalkanes, 3099
(^{13}C, ^2H) Residual dipolar and indirect spin–spin coupling effects in high-resolution ^{13}C nuclear magnetic resonance spectra of solids, 3791
UV excitation
Photophysics of UV-excited Cl_2CS in a perfluoroalkane solvent, 3251
UV extinction curve
Neutral and ionized polycyclic aromatic hydrocarbons, diffuse interstellar bands and the ultraviolet extinction curve, 2277
UV spectroscopy
Flash photolysis study of the UV spectrum and kinetics of reactions of the acetonylperoxy radical, 2993
UV–VIS spectroscopy
Spectroscopic characterization of CuTh oxide catalysts in decomposition of isopropyl alcohol, 2545
Mechanisms of the Cl-atom-initiated oxidation of acetone and hydroxyacetone in air, 2983
Valence electronic states
Fragmentation of valence electronic states of BF_3^+ below 21.2 eV, 1179
Valence photoemission
Valence and core photoemission of the films formed electrochemically on aluminium in nitric acid, 263
Vanadia–titania catalyst
Infrared characterization of the hydrocarbon intermediates in the oxidation of toluene and xylenes over vanadia–titania catalysts, 753
Vanadium pentaoxide hydrate
Thermal desorption of *n*-alcohols intercalated in vanadium pentaoxide hydrate, 3827
van der Waals complex
Study of the $I\cdot CO_2$ van der Waals complex by threshold photodetachment spectroscopy of I^-CO_2, 1449
van der Waals interaction
Van der Waals liquids, Flory theory and mixing functions for chlorobenzene with linear and branched alkanes, 89
van der Waals molecule
Quantum-chemical study of the $CH_4\cdots HCl$ complex, 2363
Variable-pressure infrared spectroscopy
Variable-pressure infrared studies on the molecular flexibility of the model lubricant 2-ethylhexyl benzoate (EHB), 881
Velocity averaging
Velocity-averaging effects on polarisation measurements in hot atom reactions, 1527
Vibrational energy transfer
Rotational and vibrational energy transfer in $CH(A\,^2\Delta)$, 1287
Vibrational excitation
Rate of reaction between CN radicals and vibrationally excited HCl, 2355
Vibrational excitation effects
Double many-body expansion of the two lowest potential-energy surfaces for Li_3 and dynamics of the $Li + Li_2(v)$ reaction. Initial orientation and vibrational excitation effects, 1511
Vibrational mode
Structure, bonding and vibrational modes of the *p*-aminophenoxyl radical and *p*-benzosemiquinone radical anion from *ab initio* molecular orbital calculations, 665
Vibrational spectroscopy
Conformers, vibrational spectra and laser-induced rotamerization of

$CH_2ClCOOH$, 3235
Vibration–rotation coupling constant
Calculated spectroscopic constants and the equilibrium geometry of HCCCl, 3669
Virial theorem
Virial theorem decomposition of potential-energy surfaces. Analysis of the double many-body expansion ground-state surface of Li_3, 3885
Viscosity
Relative viscosities and quasi-thermodynamics of solutions of *tert*-butyl alcohol in the methanol–water system: A different view of the alkyl–water interaction, 3381
Gas viscosities and intermolecular interactions of replacement refrigerants HCFC 123 (2,2-dichloro-1,1,1-trifluoroethane); HCFC 124 (2-chloro-1,1,1,2-tetrafluoroethane and HFC 134a (1,1,1,2-tetrafluoroethane), 3545
Voltammetry
Voltammetry of Tl^{I}, Cd^{II}, Cu^{II}, Pb^{II} and Eu^{III} at phosphatidylserine-coated mercury electrodes, 3081
Volume
Thermodynamic study of the ternary system NaCl–H_2O–Et_3N at 25 °C. Part 1.—Volumes, 3761
Water
Orientational relaxation in hydrogen-bonded systems: Liquid water, 1975
Possible role of non-hydrogen-bonded units in the chemistry of liquid water, 2417
Water–glucose mixture
Kinetics of the solvolysis of a cationic and of an anionic chlorocobalt(III) complex in water–glucose mixtures: Anomalous effects on the enthalpy and entropy of activation, 3565
Water maser
Computation of inelastic rotational rates and collision cross-sections for astrophysically important systems: H_2 + H_2O and the water maser, 2239
Water sorption
Water sorption, binding and solubility of polyols, 3271
Wetting
Steady states in membrane distillation: Influence of membrane wetting, 4333
X-Ray absorption spectroscopy
X-Ray absorption spectroscopic and electron paramagnetic resonance studies on the strong metal–support interaction of platinum supported on titania dispersed on silica, 2067
X-Ray diffraction
X-Ray diffraction, high-resolution transmission electron microscopy and Fourier-transform infrared study of Ca-doped Al_2O_3, 135
Reversible redox behaviour between silver cations and silver metal particles in hydrated Ag-Y zeolites, 595
Further studies on aluminophosphate molecular sieves. Part 1.—$AlPO_4$-H2: A hydrated aluminophosphate molecular sieve, 951
Further studies on aluminophosphate molecular sieves. Part 2.—VPI-5 related aluminophosphate materials, 957
Reduction of supported iron oxide studied by temperature-programmed reduction combined with Mössbauer spectroscopy and X-ray diffraction, 1079
X-Ray diffraction, transmission electron microscopy and X-ray photoelectron spectroscopic characterization of IrO_2 + Ta_2O_5 films, 1707
Predicting X-ray diffraction intensity distributions for one-dimensional inclusion compounds *via* local density functional calculations, 2017
Structure of bovine γB-crystallin at 150 K, 2677
Surface characterization and hydrogenation properties of several nickel/α-alumina catalysts, 3507
Electron paramagnetic resonance study of La cuprate-based catalysts for phenol oxidation, 3727
X-Ray excited Auger electron spectroscopy
X-Ray photoelectron/X-ray excited Auger electron spectroscopic study of highly dispersed semiconductor CdS and CdO species in zeolites, 3987
X-Ray microtomography
Scanning microradiographic and microtomographic studies of remineralisation of subsurface enamel lesions, 2907
X-Ray photoelectron spectroscopy
X-Ray photoelectron spectroscopic studies on the kinetics of photoreduction of Fe^{III} in single-crystal $K_3(Fe,Co)(CN)_6$ surfaces cleaved *in situ*, 743
X-Ray photoelectron spectroscopic study of a Cu–Al–O catalyst under H_2 or CO atmospheres, 1257
X-Ray diffraction, transmission electron microscopy and X-ray photoelectron spectroscopic characterization of IrO_2 + Ta_2O_5 films, 1707
X-Ray photoelectron spectroscopy study on chemical states of fluoride in bovine dentine treated with NaF, 2901
Surface characterization and hydrogenation properties of several nickel/α-alumina catalysts, 3507
X-Ray photoelectron/X-ray excited Auger electron spectroscopic study of highly dispersed semiconductor CdS and CdO species in zeolites, 3987
Silylation of H-ZSM-5: An X-ray photoelectron and infrared spectroscopy study, 4231
X-Ray spectroscopy
Photophysics, molecular reorientation in solution and X-ray structure of a new fluorescent probe, 1,7-diazaperylene, 49
Ytterbium
Physico-chemical and catalytic properties of ytterbium introduced into Y-zeolite, 3177
Yttria-doped ceria
Effects of long-range forces on oxygen transport in yttria-doped ceria: Simulation and theory, 3123
Yttrium
Diffusivity and solubility of hydrogen and deuterium in yttrium, 4375
Zeolite
Limitations of resolution in the ^1H magic angle spinning nuclear magnetic resonance spectroscopy of zeolites. Further results, 165
Study of the pre-crystallization stage of hydrothermally treated amorphous aluminosilicates through the composition of the aqueous phase, 171
Reversible redox behaviour between silver cations and silver metal particles in hydrated Ag-Y zeolites, 595
Acidity and location of cations (H^+, Na^+) in HEMT and NaEMT determined using benzene adsorption, 857
Ion exchange in zeolites. Part 2.—Hydrolysis and dissolution of zeolites NaX and NaY, 971
Ion exhange in zeolites. Part 3.—Hydrolysis and trace $^{45}Ca^{2+}$ and $^{22}Na^+$ exchanges in zeolites X and Y, 977
Frequency response technique measurements of *p*-xylene diffusion in silicalite-1 and -2, 1063
Disruption of the MFI framework by the incorporation of gallium, 1131
Adsorption of methanol and related molecules on zeolite H-ZSM-5 and silicalite, 1139
Fourier-transform infrared study on the encapsulation of carbon monoxide in cation-exchanged X-zeolites, 1143
Fourier-transform infrared study of the protonation of the zeolitic lattice. Influence of silicon: aluminium ratio and structure, 1271
Effect of Si: Al ratio and type of binder on the catalytic properties of HZSM-5 catalysts, 1277
First observation of muoxyisopropyl radicals in a zeolite: Me_2COMu in NaX, 1283
Infrared spectroscopic study of the interaction of cations in zeolites with simple molecular probes. Part 3.—Adsorption and polarization of methane and ethane on cationic forms of high-silica zeolites, 1393
Dissolution of amorphous aluminosilicalite zeolite precursors in alkaline solutions. Part 1.—Kinetics of the dissolution, 1817
Strength of Brønsted acid sites in boralites, 1829
Protonic acid sites in stabilised Y zeolites after reduction of M^{2+} cations with hydrogen, 1833
Chrystallization of zeolite ZSM-39 studied by ^{13}C and ^{29}Si magic-angle spinning nuclear magnetic resonance spectroscopy, 1839
Acetylene, methylacetylene and ethylacetylene polymerization on H-ZSM5: A spectroscopic study, 1843
Preparation, characterization and photoreactivity of titanium(IV) oxide encapsulated in zeolites, 1861
Liquid-phase adsorption of monosaccharide–water mixtures on X and Y zeolites, 1871
Ion exchange in zeolites. Part 4.—Hydrolysis and trace $^{134}Cs^+$ exchange in K- and Na-mordenite, 1877
Hyperfine anisotropy and mobility of organic radical cations in zeolites, 2101
Catalytic studies with dealuminated Y zeolite. Part 1.—Catalyst characterisation and the disproportionation of ethylbenzene, 2551
Effects of Fe^{3+} on electron spin echo signals in zeolites, 2559
Measurements of transport rates of C_4 hydrocarbons across a single-crystal silicalite membrane, 3161
Adsorption of ethane and propane in silicalite-1 and zeolite NaY: Determination of single components, mixture and partial adsorption data using an isosteric system, 3169
Physico-chemical and catalytic properties of ytterbium introduced into Y-zeolite, 3177
Factors controlling the amination of 2-methylpropene over proton-exchanged zeolite catalysts, 3513
Computer simulation of the adsorption of a fluid mixture in zeolite Y, 3619
X-Ray photoelectron/X-ray excited Auger electron spectroscopic study of highly dispersed semiconductor CdS and CdO species in zeolites, 3987
Ultraviolet–visible spectroscopic investigations on the interaction of neopentane with acidic zeolites, 4221
Silylation of H-ZSM-5: An X-ray photoelectron and infrared spectroscopy study, 4231
Electron paramagnetic resonance and electron spin echo modulation spectroscopic studies on the location and absorbate interactions of paramagnetic Pd ion species in Pd^{II}-exchanged K-L zeolite, 4397
Zero electron kinetic energy spectroscopy
Study of the $I \cdot CO_2$ van der Waals complex by threshold photodetachment spectroscopy of $I^- CO_2$, 1449
Zero-kinetic-energy (ZEKE) photoelectron spectroscopy
Zero-kinetic-energy (ZEKE) photoelectron spectroscopy of the hydrogen-bonded phenol–methanol complex, 1609
Zinc oxide
Fourier-transform infrared spectroscopic study of adsorption of ketene on zinc oxide, 1127
Zirconia suspension
Rheology evidence of adsorbate-mediated short-range steric forces in concentrated dispersions, 2473

The following papers were accepted for publication between 1st and 31st October, 1993

Electron transfer from aromatic compounds to phenyl iodinium and diphenyl sulfinium radical cations **W. Schnabel, Y. Yagci, A. Wilpert** and **J. Bendig**

Influence of the cetyltrimethylammonium chloride micellar pseudophase on the protolytic equilibria of oxyxanthene dyes at high bulk phase ionic strength **N. O. Mchedlov-Petrossyan** and **V. N. Kleshchevnikova**

TG–FTIR study of the surface formate decomposition on Cu, CuCl, Cu_2O and CuO: Correlations between reaction selectivity and structural properties **J. Lin, K. G. Neoh** and **W. K. Teo**

Photothermal imaging of electrochemical reaction dynamics **R. S. Hutton** and **D. E. Williams**

Role of twisted intramolecular charge-transfer states in the decay of 2-(2′-hydroxyphenyl)benzothiazole following excited-state intramolecular proton transfer **R. G. Brown, C. A. S. Potter, F. Vollmer** and **W. Rettig**

Effects of protolytic interactions on the photophysics of phenyl pyridyl ketones **G. Favaro, F. Elisei** and **F. Ortica**

Photochromism, thermochromism and solvatochromism of some spiro[indolinoxazine]–photomerocyanine systems: Effects of structure and solvent **G. Favaro, F. Masetti, U. Mazzucato, G. Ottavi, P. Allegrini** and **V. Malatesta**

FTIR spectroscopic study of the effects of sulfur poisons on CO adsorption on Cu/SiO_2 catalysts **C. H. Rochester, M. B. Padley, G. J. Hutchings** and **F. King**

Brønsted acid strength in US-Y: FTIR study of CO adsorption **J. Dwyer, M. A. Makarova** and **K. M. Al-Ghefaili**

New families of triply periodic minimal surfaces **A. Fogden** and **M. Haeberlein**

Influence of framework substitution of Al^{3+} by Fe^{3+} on the sorption characteristics of β-zeolite **P. N. Joshi, E. M. Joseph** and **V.P. Shiralkar**

Stepwise growth of size-confined CdS in the two-dimensional hydrophilic interlayers of Langmuir–Blodgett films by the repeated sulfidation/intercalation technique **I. Moriguchi, K. Hosoi, H. Nagaoka, I. Tanaka, Y. Teraoka** and **S. Kagawa**

Effect of glycerol on the translational and rotational motions in lipid bilayers studied by pulsed-field gradient ^1H NMR, EPR and time-resolved fluorescence spectroscopy **L. B-Å. Johansson, G. Orädd, G. Wikander** and **G. Lindblom**

Use of a neutral network to determine the boiling point of alkanes **D. Villemin** and **D. Cherqaoui**

Volume constraint effect on solute partitioning to Triton X-100 micelles in water **H. Hoshino, T. Saitoh** and **T. Yotsuyanagi**

Heat of water chemisorption on α-Al_2O_3 at 200–400 °C **P. F. Rossi, O. Giovanni** and **M. Bassoli**

Infrared spectra and the structures of the chemisorbed species resulting from the adsorption of the linear butenes on a Pt/SiO_2 catalyst. Part 1.—Temperature dependence of the spectra **N. Sheppard** and **G. Shahid**

Infrared spectra and the structures of the chemisorbed species resulting from the adsorption of the linear butenes on a Pt/SiO_2 catalyst. Part 2.—Spectra of the hydrogenated surface species as a function of temperature **N. Sheppard** and **G. Shahid**

Dynamical studies of the reaction Be + HF(v,J) → BeF(v',J') + H on a new *ab initio* potential-energy surface **X. Liu**

Thermodynamics of complexation of 18-crown-6 with sodium, potassium, rubidium, caesium and ammonium ions in *N*,*N*-dimethylformamide **K. Ozutsumi, K. Ohtsu** and **T. Kawashima**

Spectroscopic properties of aromatic dicarboximides. Part 1.— N—H and *N*-methyl-substituted naphthalimides **J. Kossanyi, V. Wintgens, P. Valat, L. Biczok, A. Demeter** and **T. Bérces**

Electrochemical synthesis of soluble poly(9-hexylfluorene) and poly(1-hexylindene) **H. Nishihara, J. Matsuda** and **K. Aramaki**

Chiral discrimination in the formation of diastereomeric pairs. A thermodynamic and conformational investigation **B. Pispisa, A. Palleschi** and **M. Venanzi**

Frequency response analysis for multicomponent diffusion in adsorbents **L. M. Sun, G. M. Zhong, P. G. Gray** and **F. Meunier**

Laser-induced grating spectroscopy **B. J. Whitaker** and **G. Hall**

Production of $CH(X\ ^2\Pi)$ from the multiphoton dissociation of CH_2CO at wavelengths of 279.3 and 308 nm **G. Hancock, S. M. Ball** and **M. R. Heal**

Influence of preparation method on the acidity of $MoO_3(WO_3)/ZrO_2$ catalysts **P. Afanasiev, C. Geantet, M. Breysse, G. Coudurier** and **J. C. Vedrine**

Tracer diffusion of some metal ions and metal–EDTA complexes in aqueous sodium chloride solutions **D. G. Leaist** and **L. Hao**

Orientation ordering in the solid fullerene oxide: $C_{60}O$ **M. L. Klein** and **A. Cheng**

Fluorescence anisotropy decays and viscous behaviour of 2-methyltetrahydrofuran **B. Brocklehurst** and **R. N. Young**

Growth and electrochemical behaviour of a poly[tricarbonyl(vinylbipyridyl)rhenium chloride] film. Heterogeneous reduction of CO_2 **P. A. Christensen, A. Hamnett, A. V. G. Muir, J. A. Timney** and **S. J. Higgins**

Investigation of the nature of the active oxygen intermediate of graphite-supported $SmCl_3$ and $FeCl_3$ working as a cathode for the partial oxidation of alkanes and aromatics **I. Yamanaka** and **K. Otsuka**

Intramolecular hydrogen bond and molecular conformation. Part 2.—Effect of pressure and temperature on the infrared spectra of some hydroxy ketones **S-I. Ikawa, T. Cho, I. Kida** and **J. Ninomiya**

Speciation, structural characteristics and proton dynamics in the systems $NH_4NO_3{\cdot}1.5H_2O$ and $NH_4NO_3{\cdot}1.5H_2O$–$(HNO_3{\cdot}NH_4F{\cdot}NH_3)$–$H_2O$ at 50 °C **L. Bengtsson, F. Frostemark** and **B. Holmberg**

Spectrochemistry of solutions. Part 26.—Alkali-metal and alkaline-earth-metal thiocyanates in dimethylformamide and acetonitrile solutions: Hot bands, stability constants and thermicity for the formation of inner- and outer-sphere ion pairs **P. Gans, J. B. Gill** and **P. J. Longdon**

Graphic method for the determination of the complex NMR shift and equilibrium constant for a hetero-association accompanying a self-association **J-S. Chen** and **J-C. Shiao**

Optically induced Kerr constants for a homologous series of alk-1-enes and three alkadienes **N. J. Harrison** and **B. R. Jennings**

Computer simulation of particle gel formation **E. Dickinson**

Collisional activation of large ions. Energy losses and an impulsive collision theory of energy transfer **C. D. Bradley, J. M. Curtis, P. J. Derrick** and **M. M. Sheil**

Modified interpenetration function accounting for the excluded-volume effects in ternary polymer systems **A. Campos, R. García, C. M. Gómez, I. Porcar** and **V. Soria**

Rate constants of the positronium oxidation reaction promoted by several caged and open Co^{III} complexes **E. Lazzarini, A. L. F. Lazzarini** and **M. Mariani**

Structural studies on paracyanogen and paraisocyanogen **L. W. Jenneskens, J. W. G. Mahy, E. J. Vlietstra, S. J. Goede** and **F. Bickelhaupt**

Experimental and theoretical study of the reaction $Fe + O_2 + N_2 \rightarrow FeO_2 + N_2$ **J. M. C. Plane** and **M. Helmer**

Pulse radiolysis study of the reactions of $SO_4^{\cdot-}$ with some substituted benzenes in aqueous solution **B. S. M. Rao, G. Merga, C. T. Aravindakumar, H. Mohan** and **J. P. Mittal**

Reactivity of some square-planar palladium(II) complexes in aqueous solution and in heptane–AOT–water microemulsions **C. Sbriziolo, F. P. Cavasino, M. L. T. Liveri** and **V. T. Liveri**

Raman spectroscopic monitoring of oxygen clathrate hydrate formation from microporous amorphous solid water **A. Hallbrucker**